Aspects of Pāṇinian Semantics

Edited by

C. Rajendran

साहित्य

This volume brings together the papers presented in the seminar on 'Pāṇini and Modern Semantics' by eminent linguists, logicians and grammarians at a seminar organized by the Sahitya Akademi. The topics discussed at the seminar were of a wide range from *kāraka* theory to the computer compatibility of Sanskrit and from socio-lingustics to structural grammar. Here the manifold conceptual domains of Pāṇinian grammar are being subjected to meaningful explorations. This collection opens up possibilities for a dialectical interaction between conventional and formal grammar and semantics.

A unique feature of the Indo-European languages is their capacity to build compounds and this tendency has developed into unusual proportions in later classical Sanskrit. The great Pāṇini has exhaustively documented the contours of compound formation which take into account both syntactic and semantic issues. Some scholars demonstrate through their papers how the semantic predilection of Pāṇini is manifest in his compound rules, as in the distribution of vocabulary into fields.

ISBN 81-260-1413-X

Rupees Two fifty only



Aspects of Pāninian Semantics

Aspects of Pāṇinian Semantics

Edited by
C. Rajendran

Sahitya Akademi

Aspects of Pāṇinian Semantics : Seminar papers edited by C. Rajendran on *Panini and Modern Semantics* held on 10-12 October 1998 at Calicut, Sahitya Akademi, New Delhi (2002), Rs. 200

First Edition 2002

Sahitya Akademi

Head Office
Rabindra Bhavan, 35, Ferozeshah Road, New Delhi 110 001

Sales Section
'Swati', Mandir Marg, New Delhi 110 001

Regional Offices
Jeevan Tara Building (Fourth Floor)
23A/44 X, Diamond Harbour Road, Kolkata 700 053

Central College Campus,
Dr. B.R. Ambedkar Veedhi, Bangalore 560 001

172, Mumbai Maṛathi Grantha Sangrahalaya Marg,
Dadar, Mumbai 400 014

CIT Campus, T T T I P.O.
Taramani, Chennai 600 113

Price : Rupees Two Hundred only

ISBN 81-260-1413-X

Website:http://www. sahitya-akademi. org

Laser Typeset by Aksharshree and printed at Colourprint, Delhi 110 032

CONTENTS

PREFACE

THIS VOLUME is a collection of the papers presented at the National Seminar on 'Pāṇini and Modern Semantics' conducted by Sahitya Akademi (National Academy of Letters, India) in collaboration with the Department of Sanskrit, University of Calicut, Kerala, in October 10-12, 1998 at Calicut University. I, have great pleasure in presenting the proceedings of the Seminar in a book form.

I am greatly indebted to Sahitya Akademi for sponsoring the Seminar and also for taking the necessary steps to publish the proceedings. My thanks are especially due to Prof. K. Satchidanandan, Secretary of Sahitya Akademi, Prof. Ramaranjan Mukherji, Convener, Akademi's Advisory Board for Sanskrit and Sri Jithendra Nath, Assistant Editor, for their whole hearted co-operation and help. I am also indebted to Dr. K.K.N.Kurup, the Vice-Chancellor and other officials of University of Calicut for providing us with the infrastructure for the smooth conduct of the Seminar.

I express my sincere gratitude to the eminent scholars from different parts of the country who enthusiastically participated in the three-day seminar and readily made their papers available for the volume at short notice.

— C. RAJENDRAN

INTRODUCTION

DESCRIBED BY Bloomfield as 'one of the greatest monuments of human intelligence,' Pāṇini's *Aṣṭādhyāyī* continues to exercise its charm on linguists all over the world even in modern times. A masterpiece in about four thousand aphorisms, it maps the complex contours of Sanskrit, which is one of the most versatile and ancient classical languages. What Pāṇini has achieved through his algebraic formulations is nothing short of a miracle, creating order out of the chaotic mass of a language which has both ritualistic and secular dimensions. His meticulous rules, aimed at the derivation of authentic forms from abstracted roots, operate almost as systematically and uniformly as the precise rules in a computer software. Many modern linguists have started from where Pāṇini has let off and scaled new heights in phonological and morphological studies. The fact that Pāṇini's grammar has enraptured even generativists, who have come a long way from Bloomfield and his structuralism is enough to indicate the astounding range and depth of his model.

Yet, the problematic universe of reality has always remained as a disturbing 'trace' (to use a Derridian term) interacting with the ordered universe of grammar and posing a number of fascinating issues. How did Pāṇini look upon the real objects of the linguistic discourse? What was his attitude to social structures, gender problems and the dichotomy between grammatical categories and the objects represented by them? What were his strategies in coming to terms with the all too real world outside language? The more deeply we probe in these directions, the more problematic the insular world of grammatical categories turn out to be. The manifold conceptual domains of Pāṇinian grammar may be subjected to meaningful explorations through such enquiries

which provide possibilities for a dialectic interaction between formal grammar and semantics.

These were, in fact, the fascinating areas of search of the three-day National Seminar on 'Pāṇini and Modern Semantics', conducted by the Department of Sanskrit, University of Calicut and Sahitya Akademi, (National Academy of Letters, India) New Delhi from 10-12 October, 1998. The papers presented in the seminar by about thirty eminent linguists, logicians and grammarians are presented to the scholarly world in the present volume. The topics selected for the seminar offered a wide range of problems from *kāraka*-theory to computer and from socio-linguistics to structural grammar, even though some topics had to be left out from the seminar due to technical constraints. It is hoped that this collection will serve as a useful guide book initiating the aspiring reader into realms of Pāṇinian Semantics.

II

Prof. K.K.N. Kurup puts Pāṇinian studies in perspective, highlighting the scholarly aspect of the language addressed to by Pāṇini and the impact of the discovery of Sanskrit on western civilization. Prof. K. Satchidanandan reviews the limitations of the orientalist approach which are still holding sway in Indological studies and calls for a decolonised approach to our past to restore the legitimate importance of Indian thinkers in contemporary perceptions. Satchidanandan rightly evaluates Pāṇini as a far sighted grammarian with a profound sense of history to whom what mattered was the 'total real environment in which language worked'. Prof. Rajendran demonstrates how socio-linguistic issues are reflected in Pāṇini's representation of language. A close study of Pāṇini, Kātyāyana and Patañjali would reveal that the language mapped by Pāṇini was the elite Sanskrit of Āryāvarta and that Pāṇini was aware of dialectological variations to usage. Real life situations, problems related to social status and gender, as well as aspects of communicative competence surface time and again in Pāṇinian system, negating the traditional view of *Aṣṭādhyāyī* as a closed, formal grammar which is autonomous and self validating.

Dr. Biswanarayan Shastri explores the possibility of etymology in the determination of the meaning of words and demonstrates how socio-cultural factors contribute to the enlargement and expansion of the root meaning of individual words.

The role played by the intention of the speaker in the structure of language is an important issue implicit in *Aṣṭādhyāyi* which needs some elaboration and Prof. K.N. Neelakantan Elayath has explored all the relevant issues in his paper on 'Intention as a Semantic Condition in Pāṇini.' *Vivakṣā* or speaker's intention is all pervasive in Pāṇini, eventhough later commentators like Daṇḍanātha clarify that *vivakṣā* cannot, like an aristocratic woman, transgress social norms.

Eventhough Pāṇinian model cannot be described unreservedly as 'structural', an examination of semantic issues surfacing in structural grammar is bound to throw much light on Pāṇinian Semantics. Prof. Andrews Kutty, in his paper, 'Semantics in Structural Linguistics' critically reviews the marginalisation of semantic issues in structural approach. Although Bloomfield and for all practical purposes, even Chomsky, maintained that 'meaning' would continue to be a weak spot in linguistics for quite a long time, some of the followers of Chomsky did recognise semantics as a crucial issue. In Structural Semantics, meaning is sought to be defined in different perspectives related to grammatical meaning, possession, tangibility, definiteness, number, location, cause etc. — a far cry from the world of Pāṇini which seems to preserve the indefiniteness of the world at large.

III

We now come to the domain of meaning 'within the system'; *paribhāṣas*, the Pāṇinian 'metarules' are the system specific conventions or the 'operation-rules' of the Pāṇinian specifications. Prof. Dimri, in his paper 'Metarules of Pāṇini', however, points out that even *saṃjña* rules often partake the characteristics of metarules. Patañjali rightly compares *paribhāṣā* to a lamp, 'which, being situated in a place, illuminates the whole place'. The

function of Paribhāṣās is interpretive and they need be studied within the context of the system as signifiers with specific meaning value.

Did Pāṇini accept the principle of metaphor as a deviant usage, calling forth the suspension of the usual signification process of language and the acceptance of another meaning to give up the apparent incongruity? It is a fact that later grammarians do accept *lakṣaṇā* as an additional function of language, but Prof. K. Kunjunni Raja, in his paper 'Pāṇini and Metaphor' points out that Pāṇini did not envisage any metaphorical function as such. In fact, Pāṇini takes extra care to account for all liberties with established usaes through his meticulous *sūtras* and thus does away with the necessity of the postulation of additional power in language, though later grammarians accommodate this concept.

The interface between Pāṇinian grammar and computer is an interesting area of research. Vedavaridhi P. Rāmanujan, in his paper on 'Semantic Problems in the Computation of Pāṇinian Rules' shares his insights with us, gained through the preparation of data base of Vyākaraṇa and Dr. K. Maheswaran Nair reviews the work already done in the field in his paper, 'Pāṇini and Computer'.

IV

One of the most important areas wherein grammar enters into a pragmatic relationship with the world outside language centres around the concept of *kāraka*. Prof. V.N. Jha, in his 'Objects, Relations and Kārakas' critically surveys the issues involved in *kāraka*-theory against the backdrop of the illuminating discussions on *kāraka* in Jayantabhaṭṭa's *Nyāyamañjarī*. The emerging picture of *kāraka*, accordingly, is that of a factor involved in an activity which generates a result, and it constitutes the semantic structure which further manifests as the surface structure with case affixes and further, as the phonological structure, when transformed into usable form. Jha, thus concludes that in *kāraka*-theory, 'Pāṇinian grammar comes closer to the notion of generative grammar'. Prof. V.R. Prabodhachandran Nair, in his paper, 'Logical Structure of

Kāraka' demonstrates that most of the relations identified by Charles J. Fillmore, in his analysis of case grammar are accommodated by traditional Indian grammarians in the *kāraka* framework. Dr. K.S. Kannan shows how *vivakṣā* or the speaker's intention pervades the notion of *kāraka*, in his paper titled 'Nuances of Vivakṣā as discernible in the Kārakas'. Dr. P. Narayanan Namboodiri deals with the semantic issues involved in the genitive case which doesnot figure in *kāraka* relationship.

V

Gender and Number are some tricky issues in languages like Sanskrit which follow grammatical conventions rather than factual world in usage. Dr. Kapil Kapoor and Dr. Santosh Kumar Shukla, in their paper, 'Theory of Gender and its Generation in Pāṇini' review the basic issues involved and the techniques used by Pāṇini to assign specific gender to specific words. Prof. D. Prahlada Char discusses some interesting philosophical issues related to the gender issue in the light of the illuminating discussions made by grammarians, Mīmāṃsakas, and Naiyāyikas. Prof. Meera Chakravorthy pleads for the consideration of socio-cultural complexities in the understanding of the gender question in its manifestation in language and grammar.

More technical and perhaps less socio-culturally oriented is the problem of number, eventhough here also a one-to-one correspondence between linguistic facts and the facts of the world is difficult to establish. Dr. N.V.P. Unithiri makes a comprehensive analysis of the number problem in Pāṇinian grammar. Dr. G. Gangadharan Nair focuses on peculiar usages of number in Sanskrit and issues related to numerals. Both the papers discuss the underlying semantic issues in number and show how versatile is the grammarian's treatment of the problem in Sanskrit.

The versatility of Sanskrit and other classical language like Latin is largely due to the productivity of the basic forms which can give rise to a large number of derivatives using primary and secondary suffixes. Dr. Meenambal Narayanan surveys the semantic nuances of primary suffixes. Prof. V.Venkitaraja Sarma

and Prof. Avanindra Kumar exhaustively treat all the formations involving the secondary suffix which show the amazing range of Pāṇini's knowledge of the socio-cultural state of affairs of contemporary India.

VI

A unique feature of the Indo-European languages is their capacity to build compounds and this tendency has developed into unusual proportions in later classical Sanskrit. Pāṇini has exhaustively documented the contours of compound formation which take into account both syntactic and semantic issues. Prof. Srimannarayana Murti demonstrates how the semantic predilections of Pāṇini manifest in his compound rules, as in the distribution of vocabulary into fields. Dr. Vanitha Rāmaswamy reviews the semantic issues related to compounds on the basis of the threadbare analysis of the problem by Kauṇḍa Bhaṭṭa.

The present volume contains some papers related to some other aspects of Pāṇinian semantics also. Reduplication is a process seen in Sanskrit in the case of verbal and nominal stems, prefixes, compounds, adjectives and the like. Dr. K.V. Rāmakrishnamacharyalu makes a comprehensive survey of reduplication in Pāṇini with its semantic implications. Dr. H.C. Patyal brings forth the lexical perspectives in Gaṇapāṭha, also discussing some interesting textual problems. Prof. K.Vijayan makes a semantic survey of the important indeclinables in Sanskrit language. Prof. M. Sivakumara Swamy reviews the semantic issues related to the grossly neglected Vedic Grammar of Pāṇini. Dr. Kshirod Chandra Dash makes of a study of the influence of Pāṇinian Sanskrit on modern Oriya Semantics.

I hope that this book, which gives for the first time, a comprehensive account of the various aspects of Pāṇinian semantics will generate interest in this somewhat neglected area.

C. Rajendran

PĀṆINI AND SANSKRIT GRAMMAR

K.K.N. Kurup

It gives me immense pleasure to inaugurate this Seminar first time held in this University under the auspices of Sahithya Akademi (National Academy of Letters, India) and the Department of Sanskrit, University of Calicut, Kerala, on Pāṇini, the great grammarian and intellectual, produced by our great country at the beginning of the first millennium B.C. It also articulates my pleasure that the seminar is being honoured by the presence of Mr. K.P. Narayana Pisharati, the doyen among the Sanskrit Scholars of Kerala of our generation and other reputed scholars from different parts of India.

It was in India that there arose a body of knowledge which was destined to revolutionise the European ideas about language and linguistics in the last two centuries, when it was first time introduced before the world of European scholarship by the great orientalist Sir William Jones. The so-called discovery of Sanskrit along with its systematic studies on grammar and lexicon by the European scholarship disclosed the possibility of a comparative study of languages. Although such studies, branded under the title Indology had gradually instigated the Germanic mind to propagate the theory of purity of Aryan race along with the concept of Aryan languages, they had inaugurated a renaissance in India, that culminated in the emergence of nationalism. The Western mind which worked on India had been greatly responsible for this great Indian transformation.

Pāṇini, as a great intellect had represented an age which was one of the determining periods of Indian history. The Indian society of this period consisting of several lineages and social

formations had become a class society without a proper spoken and written language. The different classes of society differed in speech. Apparently there were forces at work which led the speakers of upper classes to adopt longer class forms of speech. The grammarians of this period extended their interest from the scriptures to the upper caste language and made rules and list of forms descriptive of correct type of speech, which they called Sanskrit. This language form known as Sanskrit was systematically defined according to the canons of grammar by Pāṇini and his treatise or *Pāṇinīyam* is one of the greatest monuments of human intelligence. It describes with the minute detail, every inflection, derivation and composition and every syntactic usage of its author's speech. No other language has been so perfectly described than Sanskrit. Such an excellent codification of Sanskrit language made it the official and literary language of the elite society and classes in India. When it had ceased to be spoken as a native language, it remained the medium for all writing on learned and religious topics.

In fact Sanskrit as introduced by Pāṇini provided a matrix for the Indian civilization. The culture of this great country was cast on that language. It became the language of scholarship, aristocracy and integration. It gave a unity to different sects and communities living all over this continent irrespective of their religious beliefs and practices. Even people belonging to lower castes specialised in Sanskrit, contributed to the culture of India. In shaping Sanskrit as the matrix for the Indian culture, Pāṇini had possibly an object in his mind and that was to describe a standard dialect so that all who desired to talk and compose could follow an established norm. In fact the language described by him became India's literary language because of his analysis and description. The Indian mind following Pāṇini, made excellence in grammatical studies and created a path for all times to come in the field of learning. This led to a language strategy including the mastery of techniques both of investigation and of manipulation. Such techniques later contributed to the development of stylistics in the

Indian languages. In Kerala, we have our *Kerala Pāṇini* who had contributed to the growth of Malayalam language.

I do congratulate the Sahitya Akademi and the Department of Sanskrit, for undertaking a united effort in understanding the work and achievement of this great *ācārya* of India whose prodigious genius shining like a solitary star in the sky of scholarship.

Thank you, Thank you all.

WELCOME SPEECH

K. SATCHIDANANDAN

Dear Dr K.K.N. Kurup, Vice Chancellor, University of Calicut, Dr. V.N. Jha, Prof. K.P. Narayana Pisharody, Prof. Rāmaranjan Mukherjee, Dr. C. Rajendran, participants of the seminar, scholars, teachers, students, ladies and gentlemen.

I am delighted to welcome all the scholars assembled here to this national seminar on 'Pāṇini and Modern Semantics' being organised by the Sahitya Akademi (National Academy of Letters) in collaboration with the Deptt. of Sanskrit, University of Calicut. We consider this seminar to be of seminal importance for various reasons.

We are passing through a period of cultural aggression, I would even say cultural re-colonisation that is an indirect consequence of economic globalisation. A subtle and nuanced cultural imperialism is striving to standardise world culture, destroy cultural diversity, deprive nations of their special ethos, and ways of thinking and living. Colonial imaginaries have staged a come-back through discourses of domination, turning culture and knowledge into marketable commodities. There is, what may be called, an increasing anthropologisation of the cultural terrain. There is too a shift from determinism to discursivism, from the monocentric emphasis on political economy to a total neglect of it in the methodologies of culture studies. Even post-colonial theories help conceal the asymmetries of global power and cover-up the neo-colonial. The metastate represented by transnational corporations is trying to create an unreal and uneven internationalism based purely on economic consumption patterns to the detriment of national cultures and the whole politics of

identity. As the ideologies of the open and free market society celebrate the triumph of free speech and knowledge, more and more parts of culture become expropriated, copyrighted and priced property and thus scarcer. Humanity is fast becoming mono-acculturated, that is Westernised, as cultural diversity is eroded. The realm of culture is torn between the tendencies of localisation and globalisation. Universal cultural packages, common core syllabi, new information technologies and multinational media promote what is apparently 'global' but what is actually the worldview of those who control the systems. This process is gradually wiping out national and local cultural identities as a result of which the vast reservoir of culturally learned responses of humankind built up over thousands of years, is being threatened — a loss parallel to the loss of genetic diversity in the biological world. The impact of this bulldozing standardisation is deeply felt also in the realm of linguistics and literary criticism. We seldom care to study our own rich traditions in the fields of semantics, structural studies, and the poetics of writing and reading. This has led to an uncritical and unresisted acceptance of Western theories of language — right from Ferdinand Saussure to Noam Chomsky and Jacques Derrida. There is no harm in pursuing Western knowledge, but we have to first be on our own ground, know our own traditions of knowledge and enquiry so that we can enter into a dialogue with the West on terms of equality, and not of superiority and inferiority as we seem to be doing now. We will have to tell the West in uncertain terms that we had a Bhartṛhari centuries before you produced your Wittgenstein, we had a Pāṇini and a Patañjali when the forefathers of your Saussure and Derrida were savages in the forests. And this assertion of our tradition has to be accompanied by fresh enquiries, analyses and comparative insights lest it should sound a vain and uncritical faith in a glorious past which is what revivalism is all about.

We are holding this seminar — remember we have been holding similar national and international seminars year after year, on the state of Indology, on Vākya, on Bhartṛhari and Wittgenstein, on comparative poetics and other similar topics — also at a time

when, despite the oppressive spread of Western mores and modes, the interest of linguists in India and abroad is getting more and more focussed on the subtleties of Indian linguistics — both grammar and semantics. Pāṇini, Patañjali and Bhartṛhari have attracted special attention in this international discourse on the structures of language and the production of meaning. This new interest has been provoked partly by the developments in Western linguistics and literary theory especially the structuralist and post-structuralist discussions initiated Saussure, Bakhtin, Louis Hjelmsew, Claude Bremond, Jean Piojet, Roman Jakobson, Jonelkan Culler, Tzvetan Todorov, Gerad Genette by A.J.Greimas, Paul D'Man, Roland Barthes, Louis Althusser, Jacques Lacan, Michel Foucault, Jacques Derrida Julia Knzteva, Philip Solles, Austin, Searle and others who have developed critiques of New Criticism and its spokesmen like I.A. Richards T.S. Eliot, W.K.Wimsatt and Monroe C. Beardsley who had turned literary works into fixed verbal icons whose meanings are within them. Theories of reading and reception put forward by Wolfgang Iser, Haus Robert Jauss, Roman Ingarden, Walter Slatoff, Stanley Fish and others have also ascribed the production of meaning to the process of reading rather than the works themselves. One can see that this is close to our own theories of *dhvani* and *anumāna*, where the reader and the process of horizontal and vertical reading become the sources of meaning. One may also examine the ideas of the disjunction of the signifier and the signified and the consequent free play of meaning that are at the root of post-structuralist semantic strategies, including the infinite deferral of the ultimate meaning propounded by Derrida. The Sausserian idea of difference and the Derridean idea of differance or deferment also may be looked at anew from the point of view of Indian semantics.

Pāṇini's centrality to any discussion of the structure of language and semantics in India hardly needs reassertion. Maxmuller was right in saying that *Aṣṭādhyayī* did for the development of Indian intellect what the Euclidean geometry did for the European. The Pāṇinian system of grammar together with

the *vartikas* and *iṣṭis* is so exhaustive that it provides almost for every form of every word used in the classical Sanskrit. Yet it would be wrong to believe as Maurice Winternitz did, that Pāṇini's grammar fettered Sanskrit and restricted its natural development. The great grammarians upto Patañjali and Bhartṛhari knew that grammar always follows actual language-use and hence kept the language open to transformation. Bhartṛhari even says that what the grammar teaches is *avidyā* and we have to reach *vidyā* through *avidyā*; the rule of grammar had to yield whenever it came in conflict with the actual usage among the *śiṣṭas* or the enlightened. Pāṇini really checked the deterioration of Sanskrit when it was being marginalised by Pāli and the new Indian languages as pointed out by I.S.Pawate. This was done through the system developed across the three works *Dhātupāṭha*, *Gaṇapāṭha* and *Sūtrapāṭha*. Pāṇini disentangled grammar from other things mixed up with it earlier and gave us a comprehensive work on grammar. His work as *sūtrakāra* was to preserve the whole of his predecessors just as Kātyāyana as *vārtikakāra* collected the *vārtikas* by his predecessors while both of them added their own contribution to the existing norms, canons and analytical modes. Pāṇini was a *pravaktṛ* of a different kind as he enriched the contributions of earlier *ācāryas*. Sentence, while being the basic unit of language to Pāṇini was to him also the part of a larger unit, discourse. Pāṇini's linguistic categories correspond, as argued by Dr. Yajanveer Dahiya, to the underlying conceptual relations as per as it could be possible. Pāṇini recognises the constraints imposed by real usage on the linguistic system and understands the interrelation and interaction of various levels and sub-levels of this hierarchical system. He had a profound sense of history and he took into account the impact of social classes even on phonetics. What mattered to him was the total, real, environment in which language worked. This makes his statements at once general and particular. John Brough and J.F.Staal too have acknowledged the debt of Indo-European scholars to Pāṇini's example with regard to the thoroughness of structural analysis while Paul Kiparsky introducing his study of Pāṇini as a variationist, has pointed to the

need to interpret *Aṣṭādhyāyī* at the factual, structural and theoretical levels. The mundane and the sophisticated exist side by side in Pāṇini's analysis as he views language as a system of meaningful noise and a pragmatic tool of communication in a speech community that is well stratified in its social organisation. The scope of language use in his view is unrestricted; speakers make use of it to express events and experiences of the outer as well as inner world. Pāṇini had the special advantage of having been born in times when linguistic study was cultivated with profound commitment and having appeared towards the end of a long trail of illustrious grammarians. We are indebted today to a series of great Indian and foreign scholars in the study of Pāṇini from Theodor Goldstucker, Caddon C.J. Bailey, Otto Bohtlingk, T. Burrow, Robert Birwe, W.D.Whitney, Louis Renon, Paul Kiparsky, Bruno Liebich, J.F. Staal and Paul Thieme to V.S. Apte, Madhav Deshpande, S.D. Joshi, S.D. Laddu, G.B. Palsule, Kapila Deva Shastri and the scholars and researchers participating in this seminar. I am confident that this seminar will enrich the discussions on the semantic aspect of Pāṇini done over the years by taking up for discussion the historical, social, sexual, metalinguistic, relational, lexical and logical dimensions of Pāṇini's semantics.

I gladly welcome Dr. K.K.N. Kurup, Vice Chancellor, University of Calicut who kindly agreed to inaugurate the seminar. I also welcome Dr. V.N. Jha, eminent Sanskritist and Director, CASS, Pune who is presiding over this inaugural session, the outstanding scholars Prof. K.P. Narayana Pisharody, the chief guest, and Prof. Rāmaranjan Mukherjee, the Convener of our Sanskrit Advisory Board who is delivering the Key-note address and Dr. C. Rajendran, the brilliant young researcher who is also our co-organiser. I welcome all the distinguished scholars who are chairing various sessions and presenting papers on different aspects of Pāṇini's linguistics. Let me extend my welcome to everyone assembled here to take part in and listen to the discussions.

Pāṇiniyaṇ Arthavijñānam (Synopsis)

पाणिनीयं अर्थविज्ञानम्

के. पी. नारायणपिषारटि

येनाक्षरसमाम्नायमधिगम्य महेश्वरात्।
कृत्स्नं व्याकरणं प्रोक्तं तस्मै पाणिनये नमः।।

व्याकरणशास्त्रविषये पर्यालोच्यमाने पाणिनेः अष्टाध्यायीसदृशं किमपि व्याकरणं लोके कुत्राऽपि न दृश्यते। चतुसहस्रोत्तरं सूत्रजातं द्विसहस्राधिको धातुपाठः, लिङ्गानुशासनं चेति व्याकरणसाम्राज्यं सुविस्तृतं विराजते। भगवता पाणिनिना पूर्वाचार्याणां मतभेदा अपि तत्र तत्र कटाक्षिताः वर्तन्ते येनेदं स्फुटीभविष्यति यदयमाचार्यः पूर्वसूरिप्रणीतानि शास्त्राणि लोकप्रयोगांश्च क्रोडीकृत्यैव महदिदं व्याकरणशास्त्रं निर्मितवान्। पाणिनिना व्याकृता गैर्वाणी न केवलं ग्रन्थभाषा आसीत्। दूराद्धृते च, 'नादिन्याक्रोशे पुत्रस्य' इत्यादिषु सूत्रेषु संस्कृतभाषायाः दैनं-दिनव्यवहारोपयोगिता सुसिद्धा वर्तते। इत्थं यथा यथा निरीक्ष्यते तथा तथा चेदंस्पष्टीभविष्यति यत् पाणिनीयं लोकशास्त्रानुसारं प्रवृत्तं वर्तते। देशकालानुरोधेन प्रकरणानुरोधेन च विहिताः प्रयोगविशेषाः भगवतः पाणिनेः व्याकरणस्य सर्वंकषतां प्रमापयन्ति।

शब्दप्रमाणकाः वयं इति यदपि वैयाकरणैः स्वीकृतं तथापि बहुषु लक्ष्येषु सूत्राणां अर्थमाश्रित्य विधानं पाणिनीये लक्ष्यते, यथा क्रय्यजय्यौ शक्यार्थे, पुत्रेऽन्यतरस्यां खट्वा क्षेपे, कृत्यैरधिकार्थवचने इत्यादिषु। शब्दप्रतिपादनव्यग्रोऽसौ वैयाकरणः कृत्रिमभाषायाः प्रणयनेन संज्ञाकरणं साधितवान्। अपि च सूत्राणां युगपद् प्रवृत्तौ असिद्धकल्पनद्वारा इष्टरूपाणां सिद्धिश्च वर्णितः। पाणिनिना प्रणीतानां सूत्राणां अर्थमण्डले विचार्यमाणे भारतवर्षस्य प्राचीनसंस्कृतिः संपूर्णतया तत्र अङ्किता विराजमाना दृश्येत।

SOCIO-SEMANTIC DIMENSIONS OF PĀṆINI'S GRAMMAR

C. RAJENDRAN

SOCIO-LINGUISTICS looks upon language as a speech act in all its social dimensions, where linguistic structures interact with socio-cultural structures. Here language is not regarded as an abstract system totally bifurcated from its context, but as a mode of human behaviour inseparably connected with human society. Pāṇini's grammar has documented and authenticated a language spectrum consisting of two sharply distinguished sub-domains called *chandas*, the Vedic language and *bhāṣā*, the language used for ordinary discourses. The structuration and systematisation in this grammar is so thorough and overwhelming that we tend to look upon it as an autonomous unit, with a dynamics of its own, totally insulated from the real life situations which accompany language transactions. Scholastic tendencies manifested in classical Sanskrit in the post-Pāṇini phase have reinforced this perception of language as the mechanical product of some four thousand fixed rules enumerated in *Aṣṭādhyāyī*. But socio-semantic perspective gives us a totally different picture of the language mapped by Pāṇini; the language documented is extremely flexible, governed as it is by the context of its usage. The languages or the language domains documented in *Aṣṭādhyāyī* give us interesting clues of the patterns of linguistic usages determined by multifrious socio-cultural factors.

The very fact that Pāṇini leaves out Prakrits from his treatment shows that the language spectrum envisaged in his system is extremely selective as it is confined to the linguistic behaviour of the upper sections of the society. Pāṇini's selective approach may indeed be partly explained by the fact that Prakrits

are phonologically and morphologically much different from the Sanskrit language, but this is only a part of the story. It may be pointed out that the distinctiveness of the Vedic language does not prevent Pāṇini from viewing it as a sub domain of the continuum of the language māpped by him. The reason is that it is the language of the Traivarṇikas, both ritualistic and secular, which is sought to be addressed by Pāṇini through his grammar.

Later commentators like Patañjali seem to emphasise the view that the main function of grammar is the preservation of Vedic tradition in its pristine purity. Even though the professed aim of grammar is the employment of correct words, it is only in ritualistic function that this is insisted upon. It other words, it is the grammatical lapse in the usage of Vedic language which creates unfavourable results and on ordinary occasions slight mispronunciation does not yield any evil result as in the case of a group of sages nicknamed *Yarvāṇastarvaṇaḥ*. However, Pāṇinian grammar as later linguistic history shows, was almost never used in the preservation of Vedic utterances, and became the norm-setter in the non-ritualistic usage of the ordinary language.

The main point insisted upon by Patañjali, in ritualistic context, apart from the avoidance of obvious mispronunciation of words like *he arayaḥ* as *he layaḥ*, is the preservation of the accent system the violation of which entails serious consequences. Patañjali illustrate the semantic difference of identical forms in *bahuvrīhi* and *tatpuruṣa* which can be identified closely on the basis of the principal accent. Thus *sthūlapṛṣatī* in *bahuvrīhi* retains the accent system of the former member of the compound in tact as per the rule. *Bahuvrīhau prakṛtyā pūrvapadam* (6.2.1). On the other hand, if the same cluster of works is converted into *tatpuruṣa*, the first word will lose its *udātta* accent, which will be retaned only in the second member of the compound as per the rule *samāsasya* (6.1.223). The obvious semantic difference between these two compounds, as manifested in the accent shifts in the words like *indraśātru* is enough to kill an indiscriminate user, as illustrated by the story of Vṛtra. It is in the ritualistic

context that this distinction manifests and thus we can see that it is the situation which determines the phonetic structure and the meaning of a compound word.

Pāṇinian grammar does not have any space to treat dialectical differences of the language eventhough these were certainly known to Kātyāyana and to Patañjali and in all probability, to Pāṇini himself. Patañjali, in a famous passage of *paspaśāhnika* refers to semantic differences of various words in different places. Pāṇinian system of grammar does not have any mechanism to document the semantic differences of words caused by dialectical features. Nor does Pāṇini anywhere assert the superiority of any particular dialect over other. According to tradition, Pāṇini belonged to the town of Śālatura near modern Peshwar. Deshpande has argued that "there is syntactic and phonological evidence in the *Aṣṭādhyāyī* to show that Pāṇini was a frontier grammarian", and "was maximally familiar with the peculiarities of the language of the northwest".[1] While Pāṇini refers to Udīcya and Prācya regions, he is silent about Madhyadeśa, 'central region'. In contrast with this, both Yāska and Patañjali refer to Madhyadeśa and Patañjali minces no word about the superiority of the Āryāvarta, which alone, in his view represents the region of standard Sanskrit.[2] He describes Āryāvarta as the region east of the Ādarśa region, west of the Kalaka forest, south of Himalayas, and north of the Vindhya mountains.[3] Ironical as it is this region does not include Pāṇini's birth place. On the other hand, Pāṇini does not make any claim of the linguistic superiority of his region, and gave shape to a grammar representing the abstracted common factor of all dialects and variations of the language. Deshpande conjunctures that Pāṇini's neutrality in this respect may be due to the fact that his region was not politically dominant in contrast with the bulk of the Sanskrit speaking region which was in the East. However, his locality must have subtly influenced him in making his abstracted common factor somewhat more akin to the

1. *Sanskrit and Prakrit : Socio-linguistic Issues*, p. 76.
2. *Mahābhāṣya* Vol. I, pp. 9-10, *Nirukta* Vol. I, pp. 127-128.
3. Deshpande, op. cit., p. 80.

north western usage. In the domain of Vedic language, Pāṇini's unfamiliarity of the *Vājasaneya Saṃhitā* is explained by Weber on the basis of the fact that *Śukla Yajurveda* was mainly studied only in the Eastern region. The relative southern location of Kātyāyana is jocularly hinted by Patañjali in his observation, *priyataddhitā hi dākṣinātyāḥ,* while commenting on *yathā laukikavaidikeṣu.*

Dialectical features seem to be hinted at by Pāṇini himself in *Aṣṭādhyāyī,* when he refers to his predecessor grammarians. Of all he mentions ten of these, viz. Āpiśalī, Kāśyapa, Gārgya, Gālava, Cākravarman, Bhāradvāja, Śākaṭāyana, Śākalya, Senaka and Sphoṭāyana. The traditional commentators simply take these references by name as indicating the optionality of the concerned rule; obviously, this must be based on their conviction that the Sanskrit language is eternal and perennial and a different view concerning a particular usage can be accommodated only as an option in this theoretical framework.[1] But such rules like *avaṅ sphoṭāyanasya* and *vā supyapiśaleḥ* become much more intelligible socio-linguistically if we take them to be referring to dialectical features of Sanskrit documented by other grammarians and accounted by Pāṇini himself.

Deshpande has demonstrated that Pāṇini himself conceives of several sub-domains of usage in the panchronic flatland of Sanskrit, even while theoretically adhering to the notion of eternal Sanskrit. Thus he makes significant distinctions between Colloquial usage and Vedic usage, Colloquial usage and Optional Vedic usages, Optional Colloquial usage as well as Optional Colloquial usage with preferences.[2] Kiparsky had shown that the three terms *vā*, *vibhāṣā* and *anyatarasyām* are not to be treated as synonyms and are to be taken as to mean different preferences among optional variants. Thus *vā*, shows the option is preferable, *vibhāṣā*, 'preferably not', and *anyatarasyām* 'alternatively'. These specifications assume tremendous significance in a socio-linguistic analysis, since they register 'the stylistic preferences among

1. See also Cardona, *Pāṇini, a Survey of Research*, p. 147.

2. Deshpande, op. cit., p. 55.

variants which are characteristic of any living language in its natural state.'[1]

Aṣṭādhyāyī itself contains several interesting specifications which show the socio-cultural and contextual factors at work determining linguistic usage. Pāṇini explicitly refers to peculiar usages like return salutation *(pratyabhivāda)* with *pluta* elongation, as in *āyuṣmān bhava devadatta* applicable in the case of a student belonging to the three upper classes, when he greets a person after prolonged sojourn *(vipravāsa)*. Kātyāyana restricts this resalutation to male salutees only as per the *vārttika striyām na*. These instances show how ceremonial salutations and return greetings are related to gender, occasion and social prestige. Ellipsis in *dvandva* compound involving gender relations is another instance suggestive of the gender norms of the society as in *pitarau*.

A consideration of the actual speech situation would make some prescriptions of Pāṇini much more intelligible. Vasant Bhandare lists several *sūtras* of Pāṇini like *dūrāddhūte ca* (8.2.84), *haihe prayoge haihayoḥ* (8.2.85), *guroranṛtonantyasyapyekaikasya prācām* (8.2.86) which refer to various communicational situations. Similarly Pāṇini refers to accent systems in other real-life situations like argumentation (8.2.94), threat (8.2.95, 8.2.96) mental deliberation (8.2.97), assent (8.2.99), question/praise (8.2.1000), expression of envy, praise, anger, blame (8.2.103), censure of impolite expression (8.2.104) and question/narration (8.2.105).[2] The prescription of the *aluk samāsa* in instances like *dāsyāh putraḥ* and *vṛṣalyāḥ kāmuka* which suggest derision as against neutral usages like *dāsīputra* etc., made as per *ṣaṣṭhyā ākrośe* (6.3.21) may be governed by the consideration that the uncompounded first word can be stressed for emphasis.

Dell Hymes has formulated the concept of 'communicative competence' as a supplementary to Chomsky's notion of 'linguistic competence', maintaining that code switching on the basis of context is a normal feature of all language and a knowledge of the

1. Kiparsky, *Pāṇini as a Variationist*, p. 1.

2. *Sanskrit Speech Habits and Pāṇini*

actual speech situation necessarily accompanies the speaker.[1] Rules of grammar will be useless without rules of usage. To illustrate, all the following sentences have the grammatical form of a declarative sentence.

1. I shall be fifty next year.
2. You should leave this room at once.
3. I would love some ice-cream.
4. That plate is very hot.

But the illocutionary force of item (1) is that of a statement, of (2) a command, of (3) a request and of (4) a warning. These extra-linguistic features of language are essential aspects of communicative competence. Pāṇini's *sūtras* like *vidhinimantraṇāmantraṇādhīṣṭhasampraśna prārthaneṣu liṭ* reveal that this perspective is not altogether missed in his grammar.[1]

Pāṇinian grammar, despite its reputation otherwise, has definite socio-semantic dimensions usually sidelined in traditional accounts. Tradition has portrayed Pāṇini as an uncompromising formalist, an incurable *śabdapramāṇaka*, who juxtaposes diverse and often inappropriate words in aphorisms solely on the basis of operational considerations. Not surprisingly, we have comments like the following as footnotes for the *sutra śvayuvamaghonāmatadhhite*

> *kācam maṇim kañcanamekasūtre grathnāsi bale kimidam vicitram*
> *vicārayan pāṇinirekasūtre śvānam yuvānam maghavanmāha*

Actual *Aṣṭādhyāyī*, however, has a different story to tell, if its study is supplemented by an examination of the socio-cultural situation in ancient India.

---

1. The foregoing survey reveals that surprisingly, this perspective is totally missed by Bhaṭṭojidīkṣita, who crisply remarks, *pravartanāyām liṅ ityeva suvacam caturṇām pṛthagupadānam prapañcārtham*. The illocutionary forces of the optative mood can be illustrated thus:
   1. *bhavān vastram kṣālayet*—*vidhi* (Command)
   2. *iha śrāddhe bhavān bhuñjīta*—*nimantraṇam* (Invitation)
   3. *yatheccham kriyatām*—*āmantraṇam* (Permission)
   4. *māṇavakam bhavānadhyāpayed*—*adhīṣṭham* (Polite request)
   5. *kim bhoḥ vyākaraṇam bhavānadhīyīta*—*sampraśna* (Question)
   6. *bhavānannam me dadyāt*—*prārthanā* (Request)

WORDS AND THEIR ETYMOLOGY— A CASE OF SEMANTICS

BISWANARAYAN SHAŚTRI

"THE IMMENSE power which man weilds over matter and force—which is daily astonishingly increasing and which has contributed so much to widen his material comforts is not a little due to the most wonderful medium of thought, which has enabled to utilise the labour of our fore-fathers, to thoroughly test and fully and correctly convey it to others..... Its influence is greater greater the scale of civilization.''

The linguists may find Sanskrit is more suitable for examining different principles to find out the origin of the roots and suffixes. They say that original roots are not more than three hundred and each root conveys a difinite sense. The multiplicity of roots with analogous sound is due to misconception of failure to grasp the real import. And in course of time *Nānārtha kośa* and *Dvirūpa kośa* were composed for determining the actual meaning. Take for instance the word *tīrtha* which gives three meanings perhaps after its formation, and was used to convey many more meanings. Of the multitude of meanings which was the original, and which the word has gathered due to its uses is an interesting field of investigation. The usual meaning of the word *tīrtha* is *jalāvatāra*. *Nāmaliṅgānuśāsana* gives three meanings of the word tīrtha, *Medinī* 10, *Viśva prakāśa* 8, Hemacandra 13, *Abhidhāna ratnamālā* 24. The modern lexicographer Monier Williams, collecting meanings from different literatures puts 31 meanings to the word *tīrtha*. How could this word mean *guru*, *vipra*, *adhvara* and female organ and the discharge of menstruation? When it is formed into a compound *satīrtha* (*saha samānaṃ tīrthaṃ yeṣāṃ*

te satīrthāḥ), *tīrtha* is *guru* or preceptor. But the compound word does not convey these senses which might be *adhvara* or *jalāvatāra* or a wife. Though the meanings are added to the original meanings they are not formed into compound. Thus the original meaning is preceptor, which is joined in a compound.

In Pāṇini's *Dhātupāṭha* this word can be traced in its origin to any root, and therefore, it is stated to be formed with the *uṇādi* suffix. For its meaning the time and place are responsible. In the historic perspective when there was a saint sitting in a *jalāvatāra* he attracted more attention than the spot, i.e. *jalāvatāra*, and this is the meaning of *tīrtha* in the *Rāmāyaṇa*. Subsequently the person is identified with the *jalāvatāra* itself, and the word is used first a saint, then in similarity a preceptor, and the association of other meanings may be explained in this way.

The word *saindhava* means both salt and horse. How can a word mean two different things which were not at all associated or connected? It may therefore, be explained that the word *saindhava* is formed in the region of Sindhudeśa, where salt was prepared from the sea and therefore, it is *saindhava*, and where horses were also found to be abundant in the marshy land. The traditional view is that both salt and the horses were born out of sea (*sindhu*), and hence they are called *saindhavas*. This etymology is given to the word later on.

Since the days of Yāska the etymology of a word has been used for tracing its meaning. However, this practice does not hold good in tracing the meaning in all cases. There are many words, where the etymology does not lead us to the word formation stage. We may cite a few from the popular and commonly used words. For instance, the word *taskara*, a thief, is formed with the stem *tat* by adding the word *kara*, which is formed from the rooot *kṛ* by adding the suffix *kṛs* and the resulted form is *tat* + *kara* = *tatkara*, and *taskara*. Why these two resultant forms and two meanings, one for the unusual form *taskara* ? *Tatkara*, doing any work is provided in Pāṇini 111.2.31, and *taskara* is not covered by that rule, and hence, an exception is to be made. Perhaps the

social condition at a certain period of time was responsible for coining the term *taskarā;* and the intended meaning is a person who is habituated 'to do that work'. The stealing was such an action that the society was allergic and it hated to utter it. It may be compared to prohibition imposed on uttering the name of a miser.

Another instance is *bṛhaspati*. The literal meaning of the word is 'lord of them', as the word is formed, *bṛhat + pati = bṛhaspati;* one 'who is the lord of them', and the word *bṛhat* stands for gods. There is also usual formation of the word as *bṛhatpati*. The word *bṛhat* does not clearly mean the gods though it may be traced in the Vedic literature to mean divinity. Since there is the form *bṛhatpati* the formation of the word *bṛhaspati* may be traced to the attitude of society. Pāṇini was obliged to club the words *taskara* and *bṛhaspati* to give the extra-etymological meaning. Mm. Puruṣottama Vidyāvāgīśa in his *Prayoga Ratnamālā Vyākaraṇa* (A.D. 16th *c.*) provides an aphorism which gives these two new forms : तद्बृहद्भ्यां करपत्योश्चौरदैवतयोस्तथा।

Such formation of new words which give new meanings leads us to think of the influence of other language on Sanskrit. Pāṇini had to provide for the formation of the word कानीन: from कन्या, कन्याया: कानीन:। The word means 'unmarried girl's son' and the existing rules do not cover the formation of the word कानीन: and hence the new rule. Puruṣottama refers to above also gives the new rule and cites examples व्यास: कर्णश्च। The linguists are of opinion that the word कानीन is from Dravidian language and it has been shown as formed from the word कन्या। The special rule for a particular word proves that this word cannot be derived by applying usual rules, which are applicable for sons or disciples.

In this context we are prompted to cite the observation made by Kumārila Bhaṭṭa in his *Tantravārttika* where he says that the apparent etymology of a word, which is taken from other language does not give the meaning of a word which is used by a particular group of people. One is obliged to accept the meaning as is told by them, because none shall be able to know the meaning of such

words if it is not stated by them. He cites two words, *patrorṇa* and *vārabāṇa* :

त्रोर्ण वारबाणादि यच्च तद्देशसम्भवम्।
तैरेवाकथितं नाम तच्च को वेदितुं क्षमः॥

Here *patrorṇa* means 'silk yarn' which is made from the cocoons by the silk worms. The silk worms are reared by feeding them the leaves of trees and thus related to leaves, *patra*. The word *vārabāṇa* means a kind of dress used by the warriors, similar to *kavaca*. The latter part of the word *bāṇa* means an arrow and the compound word leads us to the meaning stated above. On an examination it will come to light that the word *patrorṇa* is picked up or formed from the languages of the eastern region or that of the south. The word *vārabāṇa* appears to be from one of the languages of the western India with Sanskrit garb.

Certain words have their clear derivative meanings and in course of time they are used to mean something which may or may not have that relation. The maxim in this regard has been in use for guidance.

अन्यच्च शब्दानां प्रवृत्तिनिमित्तमन्यच्च व्युत्पत्तिनिमित्तम्।

That the reason behind the formation, i.e. etymology is different while the word conveys the sense differs from the previous ones. Viśvanātha Kavirāja cites two words, i.e. *kuśala* and *maṇḍapa*. The literal meaning of the word *kuśala* is one who cuts *kuśa* grass and in use it conveys the sense, one who is expert in doing things. The linguist finds an association of the meaning expert with the *kuśa* grass cutter in the concept that the *kuśa* grass cutter might be an expert, that is, he is more skillful than others, because he cutts the *kuśa* grass having middle like tips and sharp edges.

The word *maṇḍapa* literally means one who drinks semi-liquid substance and in use it means a canopy or covered pandal. Here the transfer of the meaning from a person to a pandal is not easily traceable though it may be conceived that the person who takes boiled rice or semi-juice might have been a strong and capable person and he used to protect his kinsmen the same the cover

spread over the heads protects person from the rain and the seen. *Amara* gives its meaning as *janāśraya* while *Śabdaratnāvalī* says that the speller given by gods is *maṇḍapa*. Thus a good number of words convey different shades of meaning and it becomes difficult to say which of the meanings is original and which are acquired ones.

There are many words which sound similar but convey different meanings such as *puḍiśa* and *puḍisa* etc. Why it is so? It may be traced to the different systems of pronunciation. Such defective pronunciation may be traced in the change of *svara* in *indraśatru*, which is well-known. And this is responsible for having two sets of pronunciation for a single word, such as *javā* and *japā*, *triviṣṭapa* and *tripiṣṭapa*, *Vaśiṣṭha* and *Vasiṣṭha* etc. The meaning is attached to them as they are pronounced in the words *aṃśa*, *aṃsa*, *śarpa* and *sarpa* etc.

I may mention one word among thousands to show how the meaning of a word has been gradually changed, step by step. The word *avarodha* is used to mean a fencing, and then a royal seraglio, and then the women living in such seraglio. Kālidāsa says :

अवरोधबहुत्वेऽपि द्वे प्रतिष्ठे कुले मम।

In this instance the etymological meaning is partially changed from fencing to the women living within royal seraglio, i.e. the fencing.

Certain words are formed in a way that the formation of the word indicates its place of origin. (This may be with reference to the place where such words are used.)

We may take the word *vaidūrya*, which is a kind of precious gem, and the literal meaning is 'produced at a distance'. It means lapis-lazuli according to Wilson and it is used for cat's eye by Anundoram Barooah in his *English-Sanskrit Dictionary*. The derivative meaning of the word *vaidūrya* is given above and it is

compared is always compared with cat's eye. The *Mahābhārata* (*Śānti*, ch. 38, V. 67) reads :

ततस्तीक्ष्णाग्रदशनो मणिवैदुर्य्यलोचनः।
मूषिकं मन्दमुद्वीक्ष्य मार्जारो लोमशोऽब्रवीत्॥

Here the simile of *vaidūrya* with cat's eye is clear. Again the poet Māgha puts the simile in *Śiśupālavadham* (3. 45) when he says :

विद्युद्विडालेक्षणभीषणाभ्यः
वैदूर्यकुड्येषु शशिद्युतिभ्यः।

Puruṣottamadeva of Bengal finds the number of words innumerable and the literature still more huge. Hence, we can conclude that, it is not possible to enumerate every meaning of every word.

'INTENTION' AS A SEMANTIC CONDITION IN PĀṆINI

K.N. NEELAKNTHAN ELAYATH

THE *AṢṬĀDHYĀYĪ* of Pāṇini is a grammatical device intended to derive infinite number of correct sentences in Sanskrit language. Essentially its directionality is from semantic structure to phonetic structure. Pāṇini's account of the derivational system, thus, begins with semantics and ends with words that are actually usable in sentence. It is true that Pāṇini nowhere in his *Aṣṭādhyāyī* defines a sentence, though he mentions the word *vākya* twice.[1] But his prescriptions regarding *kārakas*, formation of compounds, *kṛdanta, taddhita, lakāras* and gender —all have been formulated keeping in view the importance of the sentence. And some *sūtras* like *prahāse ca manyopapade manyateruttama ekavacca*[2] cannot be illustrated without the help of a complex sentence. As sentence results from the speaker's intention to 'express' something 'intention' is at the root of every lingustic behaviour.

Pāṇini's main aim was to provide a full descriptive grammar of Sanskrit language and so he gives an exhaustive statement of rules regarding word-formation. But the role played by speaker's intention in word-formation is implicit in *Aṣṭādhyāyī*. These implied notions have been brought out by its commentators like Kātyāyana, Patañjali and Bhartṛhari, especially in rules involving semantic concepts. The conditions of knowing the meaning of a sentence are also implied in some *sūtras*.[3]

---

1. *A.* VIII-1-8; VIII. 2-82.
2. *A.* I. 4-105.
3. *A.* III-2-114; VIII. 1-35.

The 'desire to express oneself' or the intention of the speaker is rendered as *vivakṣā* in Sanskrit. Pāṇini nowhere in his *sūtras* refer to this term. But in the *sūtra upajñopakRāmam ltadādyā cikhyāsāyām* (II. 4. 21) the word *ācikhyāsāyām* meaning 'when there is a desire to speak' occurs. Bhaṭṭojidīkṣita glosses it as 'if the commencement of a thing invented or started' is desired to be spoken' that *tatpuruṣa* takes neuter gender'. And thus, we get the forms *pāṇinyupajñam* (*granthaḥ*), *nandopakRāmam* (*droṇaḥ*) etc. What is interesting here, is that the speaker's intention is responsible for the appearance of a particular gender.

Later commentātors of Pāṇini make abundant use of this notion of *vivakṣa*.[1] Thus, Kātyāyana uses this word and its allied forms in seven *vārttikas*. Patañjali in his *Mahābhāṣya* frequently uses the word *vivakṣā* and gives a two-fold classification of it — *prayoktrī* and *laukikī*.[2] The meaning intended by these words however is not quite certain. Bhartṛhari also in his grammatical analysis resorts to *vivakṣā* for justifying certain usages and also for settling abstract questions of philosophical nature. The *Durghaṭa vṛtti* of Śaraṇadeva (A.D. 12.) written to reconcile certain forms of words and the *Pāṇini sūtrās* clearly states[3] '*vivakṣādhīnā hi śabdavyutpattiḥ* i.e., analysis of language depends on speaker's intention. This idea is made more explicit in another context where he says 'the principal means of grammatical analysis is speaker's intention and not the actual state of things[4]'. Though apparently a non-Pāṇinian text the *Sarasvatīkaṇṭhābharaṇa* of Bhoja (A.D. 11.) mentions *vivakṣā* as a *paribhāṣā*. And one of the important *paribhāṣas* of Bhoja is *vivakṣātaḥ kārakāṇi*[5] according to which cases are sometimes

---

1. For details see Barend. A. van Nooten 'Vivakṣā or intention to speak, as a linguistic principle' in Proceedings of the International Seminar on *Aṣṭādhyāyī*, Poona University, 1983 pp. 43-52.
2. *Mahābhāṣya* V. 1.16.
3. *A.* II. 2.8.
4. *A.* I. 3-40.
5. *A.* I. 2-63.

determined by the intention of the speaker and usages like *asiḥ chinatti* (the swords cut) are justified.

Daṇḍanātha, a commentator on Bhoja's work brings out the role of *vivakṣā* with an appropriate analogy.[1] *Vivakṣā* is compared to a *kulavadhū* who cannot transgress the limit of social customs. Thus, a word may be declined in more than one case depending on the intention of the speaker provided that the usage of the cultured people does not go against it. *Vivakṣā* is thus, considered as the proper determinant in *kārakas* and assignment of *vibhaktis* to them.

Though *vivakṣā* is accepted by Sanskrit grammarians, the way it functions in *Aṣṭādhyāyī* and in later grammatical works is not easily discovered. It seems to serve several purposes in different contexts of grammatical analysis. Barend A. van Nooten has attempted a four-fold classification of *vivakṣā* on the basis of its functions in Sanskrit grammar.[2] (1) to settle questions of philosophical nature. (2) to justify grammatical sentences and prevent misapplication of Pāṇini's rules. (3) as a regular *paribhāṣa* and (4) in the general sense of intended or emphasised.

The fact seems to be that Sanskrit grammarians were very much alive to issues relating to grammaticality and acceptability of a usage. On many occasions they have resorted to the principle of *vivakṣā* which is not to be treated as speakers' intuition but as a principle which takes into account the usage of the cultured people as well as the 'intention of the speech community'.

In Kātyāyana and Patañjali the notion of *vivakṣā*, broadly speaking, operates in two ways : one is to solve questions of philosophical nature and the other to achieve grammaticality. In the following examples *vivakṣā* is philosophically oriented :

1. Under *sūtra tasmādityuttarasya* (I. 1.67) Patañjali takes up the issue of the general and the particular. In the

---

1. Quoted by Karuna Sindhu Das in *Paribhāṣas in the Pāṇinian System of Grammar*, Calcutta, 1986 p. 234.
2. Op.cit. p. 44.

semantic interpretation of the sentence *kṛṣṇo gauḥ* (The bull is black) the problem arises whether *kṛṣṇa* specifies *gauḥ* or *gauḥ* specifies *kṛṣṇa*. The solution to this is found in *vivakṣā*. Thus, both can be general and particular depending on speaker's intention. When *gauḥ* is intended as the general *kṛṣṇa* becomes the particular and when *kṛṣṇa* is intended as the general *gauḥ* becomes particular.

2. Under the *sūtra viśeṣaṇam viśeṣyeṇa bahulam* (II. 1. 57) the problem taken up is the compounds like *kṛṣṇa tilāḥ*. Here it is asked : which is the qualified, which is the qualifier'. Both words in this compound can assume the role of both qualified and qualifier. An attempt is made by Patañjali here, to resort to the principle of *vivakṣā* and we get the forms like *tilakṛṣṇāḥ* which of course is not acceptable. Finally it is resolved by accepting one word as referring to quality and the other to substance.
3. Another instance where *vivakṣā* is applied is the controversy regarding gender and its definition. Under *sarūpāṇām ekaśeṣa ekavibhaktau* (I. 2-64) Patañjali argues that gender cannot be defined in terms of sex and that grammarians have to define it in their own way. Kātyāyana here introduces two concepts — *samsthāna* (compactness) and *prasava* (begetting). Patañjali says that when compactness is intended by the speaker the word becomes feminine and when begetting is intended it becomes masculine and when both are not intended it takes neuter gender.

Bhartṛhari takes up this problem in detail. This is because the notion of gender can determine the form of a word and one of the properties of words in Sanskrit is 'gender'. As there is variation and irregularity in gender (eg. *taṭaḥ, taṭam, taṭī, dārāḥ*) the question is raised whether gender found in nouns and adjectives is based on the real attribute of things or is it a matter belonging to the realm of words. It is said that depending up on the three

qualities of *satva, rajas* and *tamas* there is appearance, disappearance and abiding of properties in every object.[1] The masculine, feminine and neuter genders are respectively expressive of these qualities. But a word can express only one of these aspects. Here the decisive factor is the 'intention' to refer to a particular aspect— *sthiteṣu sarvaliṅgeṣu vivakṣā niyamāśrayā*.[2] The interesting point is that the principle of *vivakṣā* is invoked here in order to justify a lexical form. Here, again, the intention is not the intuition of a language-user but intention of a 'speech community'.

The second use of *vivakṣā* is to justify grammaticality and make the form of a word acceptable. Examples of this type can be found mostly in *kārakas*. A few cases may be cited :

1. When a leaf is falling from a tree we have the option to express :

   (a) *vṛkṣāt parṇam patati* (Leaf is falling from the tree)

   (b) *vṛkṣasya parṇam patati* (Leaf of the tree is falling)

In (b) the *apādāna* is not used Patañjali here says that only when 'separation' is intended the word *vṛkṣa* get the name *apādāna* and in this example it is not intended by the speaker.

2. (a) *aham paśyāmi* (I see)

   (b) *vayam paśyāmaḥ* (We see)

Both are used in singular sense by the *sūtra* — *asmadvayoḥ*.[3] The difference is explained by *vivakṣā*. If one intends that one sees at one's own initiative, singular is used. If one sees at some one else initiative plural is used.

3. (a) *asinā chinatti* (Cuts with a sword)

   (b) *asiḥ chinatti* (The sword cuts)

---

1. *Vākyapadīya*. III. 13.
2. Ibid III. 19.
3. *A*. I. 2-59.

Here the intention of the speaker is to highlight the sharpness of the sword. So the instrument becomes independent and the speaker makes the sword itself the agent.

4. (a) *sthālyām pacati* (Cooks in the vessel)
   (b) *sthālī pacati* (The vessel cooks)
5. (a) *mātaram smarati* } (he recollects mother)
   (b) *matuḥ smarati* }

In sentence 4 (b) the speaker intends to emphasise the importance of the vessel in cooking. In 5 (b) only a general relation is intended.

In the above examples the transformation of the cases and *kārakas* is not formal. It is the transformation of the description of an event to another description of the same event. This change according to Pāṇini produces some additional meaning which is intended by the speaker. The basic notion of Sanskrit grammarians is that every object mentioned in a sentence becomes an agent (*kartā*) in relation to its own minor action. The crucial question is which is emphasised by the speaker. It depends on the intention of the speaker and the structure of words and sentences he uses. In all such cases the independence of an object is highlighted. But whether an object is independent (*svatantra*) or not is determined by the intention of the speaker. Sometimes one and the same object becomes subject, object and instrument in the same sentence and we get forms like *hanti ātmānam ātmanā* etc. In all the above examples in order to bring out the importance of an object in the realization of an action the agent of the subsidiary action is foregrounded.

The principle of *vivakṣā* intrudes even in the formation of compounds. In most of the compounds one has the option to use the underived forms like *rājñaḥ puruṣaḥ* instead of *rājapuruṣaḥ*. This option is given to facilitate addition of adjectives to the secondary noun of a compound, for example as in *ṛddhasya rājñaḥ puruṣaḥ*.

Some of the compounds in Pāṇini acquire additional signification and it is due to *vivakṣā*. Thus, the compounded word *khaṭvārūḍhaḥ* by the *sūtra khaṭvākṣepe*[1] means a person going astray. If one uses the underived form *khaṭvām ārūdhaḥ* it simply means 'lying on the cot'. Compounded word is used only when censure is implied. Similarly *tīrtha dhvāṅkṣaḥ* (crow at a sacred bathing place) as a compound refer to an irregular student. If this idea is not implied one can use only the underived form *tīrtha dhvāṅkṣaḥ*.

In certain cases 'intention' or 'absence of intention' is invoked to immunise Pāṇini's *sūtras* and make a form acceptable. Following the *sūtras—dhruvamapāyepādānam* and *apādāne pañcamī* (*A* I. 4-24 and II. 3-28) the sentence *aśvāt patati* [(he) falls from the horse] is justified. But in *dhāvataḥ aśvāt patati* the word *dhāvataḥ* in ablative case creates some problem. The meaning of the word *dhruva* as fixed or stationary becomes unexplainable. Kātyāyana here says that 'not being fixed is not intended' by the word[1]. The fixity in the case of the horse is maintaining its shape ie, *aśvatva*. Thus goes the argument.

Similarly in the *sūtra—ṣaṣṭhī śeṣe* (II. 3-50) the meaning of the word *śeṣe* is said to be ambiguous. Patañjali tells that it means 'not intending the *kārakas* like *karma* etc. (*karmādīnām avivakṣā*). The principle of *vivakṣā* is also invoked in tense-formations, addition of *kṛt* and *taddhita* suffixes, etc, and pervades several rules of word-formations in Pāṇini's grammar. Though Sanskrit grammarians use *vivakṣā* to achieve rigour in grammatical analysis, in a broader sense it can be held responsible for all utterances. And this again bring us back to the famous dictum of Śaraṇadeva —*vivakṣādhīnā hi śabdavyutpattiḥ*.

---

1. *na vā adhrauvyasya avivakṣitatvāt* I. 4-24.

Bibliography

1. Bhaṭṭojiīīkṣita : *Siddhānta Kaumudi*, vols I-IV, Chaukhamba Sanskrit Samsthan, Varanasi.
2. George Cardona : *Pāṇini-A Survey of Research*, Motilal Banarsidass, Delhi: 1980.
3. Hans Henrich Hock (ed) : *Studies in Sanskrit Syntax*, Motilal Banarsidass, Delhi: 1991.
4. Kiparsky Paul : *Some Theoretical Problems in Pāṇini's Grammar*, BORI Pune: 1982.
5. Karunasindhu Dass : *Paribhāṣas in the Pāṇinian System of Grammar*, Sanskrit Book Depot, Calcutta: 1956.
6. Keilhorn. F. (ed) : *The Vyākaraṇa Mahābhāṣya of Patañjali*, vol-I Poona, 1985.
7. Joshi S.D. and S.D Laddu (ed) : *Proceedings of the International Seminar on Studies in the Aṣṭādhyāyī of Pāṇini*, Poona: 1983.
8. Laddu. S.D. : *Evolution of the Sanskrit Language from Pāṇini to Patañjali*, University of Pune: 1974.
9. Subrahmanya Iyer .K.A. : *Bhartṛhari*, Decan College, Pune: 1969.

SEMANTICS IN STRUCTURAL LINGUISTICS

A.P. ANDREWSKUTTY

IN OUR country structuralism by form and content has not been understood diagnostically to its full potential; it is felt, in a number of different but essentially interrelated disciplines. Probably and legitimately linguistics is the discipline in which structuralism was tested to its full potential with an obvious quest for evolving discovery procedures which was academically and scientifically questioned by a post-structural genius like Chomsky in favour of a more fundamentally feasible procedure of evaluation aimed at simplicity destined to bring about maximum facts with minimum means. Although Chomsky resorts to the terminology 'taxonomy' to refer to the paradigm of descriptive linguistics and terminologise the term 'description' as equivalent to definition, enumeration and generation, he as a product of structuralism bequeathes himself as part of 'structural linguistic school' in a broader perspective where the Prague School (of Roman Jakobson, Trubetzkoy), the Copenhagen School (of Hjelmslev and other Glossmaticians), the school of functionalists (of Jakobson, Martinet), the school of American Structuralism (of Bloomfield and the Bloomfieldians) are to be considered as his schoolmates. Chomsky has brought about crucial alterations to the Saussurian conceptualisation of semiology and structuralism. But whether it amounts to only a neo-structuralist movement or not is a question which would beg a precise and specific answer. Only in this theoritical backdrop we propose to deal with aspects of semantics in structuralism (or what if structuralism in semantics?)

We observe that Saussurian semantics centres around notions relevant to intentions of the speaker and the aspects of the

world to which his utterances refer; the immediate circumstances of the communicative context which might have led him to produce a particular series of noises. (Signifier-signified or form content distinction). This is based on a beautifully established structuring and differentiating operation. As Saussure puts it, 'language is a system of pure values which are determined by nothing except the momentary arrangement of its terms'. Saussure holds that meaning is 'diacritical' or 'differential' based on difference between terms and not on intrinsic properties of terms themselves. His claim concerns not language alone but the general human process in which mind creats meaning by distinguishing.

The word 'semantics' is related to the Greek noun *sema* 'sign, signal' and the verb *semaino* 'signal, mean'. It is central to the study of communication and human mind related to the thought process, cognition and conceptualisation. We classify and convey our experience of the world through language. This classificatory behaviour is one of the key stones of structuralistic formalisation of natural languages. The very notion of level distinction envisaged in linguistic analysis as a method of representing utterances is theoretically founded on this. Although language philosophers like Wittgenstein and Carnap had deep interest in semantics elucidating issues relevant to the 'expression' and 'content' sides of language it is generally felt that upto the 1950-s linguistics has been neglecting semantics. Some would say that it has abandoned semantics. To use the word 'abandoned' about semantics is an uncharitable exaggeration of facts. To be favourably precise semantics was touched upon by both Saussure and Bloomfield but with a different emphasis. Bloomfield thought that meaning can be studied only with scientific and accurate knowledge. The period from 1930 to 1951 is termed by some as a period of 'Bloomfieldian pessimissm' with regard to the study of semantics, simply due to the categorical statement in Bloomfield (1933) that 'the statement of meaning is..... the weak point in language study, and will remain so until human knowledge

advances very far beyond its present state'. We should not forget a point here that the age of Bloomfield was one for a vast 'monolith of knowledge'. The period of Bloomfieldianism is specified here as upto 1951 with a purpose. Zelbing Harris published his famous work 'Methods in Structural Linguistics' in 1951 which is considered as the concluding remarks on Bloomfieldian rigour and empirical emphasis in dealing with spoken languages. The Chomskyian reluctance to acknowledge the role of semantics in grammar in 1957 (cf. 'syntactic structures') bears testimony to his appreciation, of course, for diagnostic reasons of his own at that time, for the Harrisian guidance he received on formal and syntactic exercises. Nevertheless, persuasions were so strong for him, again for other obvious reasons, to officially recognize the role of semantics in grammar at least in 1965 in his 'Aspects of the theory of Syntax'. If not for Chomsky, at least for a few of his followers semantics became more crucial an issue after 1965. (cf. Generative Semantics vs. Interpretive Semantics). It became the yardstick for measuring the depth of deep structure in the 'semantic syndrome' of the 1970-s. Of course, it will have to be taken up as a separate paper : 'Semantics in Transformational Paradigm'.

It is quite interesting to note that even in late 1950-s the ghost of Bloomfieldianism had been walking through the corridors of linguistic analysis which is amply evident in the question raised by Chomsky in 1957 : 'How can you construct a grammar without appeal to meaning?' and a consequent rejection of the same as misguided query. The right question which is to be asked was specified as 'how can you construct a grammar?' It is to be remembered that Chomsky 1957 includes a seperate chapter on 'Syntax and Semantics' to prevent a possible infiltration of semantics into the organization of grammar. Chomsky's closest disciples, the philosophy twins Katz and Fodor echoed their master's voice even in their 'The structure of a Semantic Theory (1963)'. What else did they expect to achieve by their declaration that 'linguistic description minus grammar equals semantics' in it?

In the Indian grammatical tradition, after Pāṇini, there were several philosophical schools formulating doctrines of reality and man's place in it. Each of the various schools of different persuasions developed linguistic and semantic theories. Semantic theories in the Sanskrit tradition arose in connection with the formal description of language intersecting with ontological questions (what is real?) and epistemological queries (What can be known?). Bloomfield who might have closely observed the Pāṇinian implications could not have been in a position to manage with its consequent persuasions on ontology and epistomology leading to certain specific trends in understanding and interpretation. His adherence to the paradigm of 'description' is diagnostically typical and qualitative so that one of its late missionary practitioners could preach the slogan 'to describe facts, all the facts and nothing but facts' (cf. Nida 1946 : 20) aiming at comprehensiveness, clarity, rigour and precision in accounting for formal structures in phonology and grammar.

Prior to an elaborate statement on the structuralists' procedures for utilising and analysing meaning a brief mention of a structuralist's position in Boasian sense and a pre-structural persuasion in the Bloomfieldian sense seems to be relevant : the well-known Sapir-Whorf hypothesis which brought forth the interesting proposition on the relationship between language and culture and language and world view. Although the idea was there right from Humboldt (1836) who is quite often quoted by Chomsky especially in relation to the generative dictum that 'language makes infinite use of finite means'. Sapir, who is synonymous with Bloomfield not in approach but in the names of their classics — 'Language' (1921 and 1933) stated, 'Human beings do not live in the objective world alone but very much at the mercy of the particular language which has become the medium of expression of their society. The worlds in which different societies live are distinct worlds, but merely the same world with different labels attached'. Of course, this has an allusion to the classificatory and categorizing nature of language.

But Whorf is subtly deviant from his hypothesismate to state : 'we dissect nature along lines laid down by our native language. The categories and types that we isolate from the world of phenomena we do not find there because they stare even an observer on the face.' Therefore, the linguistic relativity principle excited by the Sapir-Whorf hypothesis falls into two versions — the lexical version of Sapir and the grammatical version of Whorf Sapir considers that the structural parts of language are only amenable to analysis because his basic orientation did not practically deviate much *per se* from the Boasian dictum 'every language must be described in its own terms'.

Here, we need to consider the major characteristic of structural semantics. The semantic value of any particular lexical item is described by contrasting the term with its semantically related items. The value cannot be decided in isolation. The vocabulary of a language is a structural network which would mean that it is not an unordered list of elements. Moreover, structure of the vocabulary is language specific and it cannot be considered as a direct reflection of an extralinguistic reality. Yet another aspect of structural semantics is the contention that the synchronic analysis of semantic structure precedes methodologically the diachronic analysis of structural change. Structural semantics adheres to the position that the semantic analysis of a natural language has to proceed in a methodologically autonomous way. This can be effected by restructuring semantic analysis to 'sense' of an item, that is the structurally relevant aspects of meaning that show up in the semantic relations that an item entertains with other words.

In order to bring out the subtle way in which semantics is integrated in the analytical procedures of structural linguistics the present paper envisages an exercise to comprehensively account for its use in a typical structural treatment of morphology, Nida (1946). We can perceive an effort in this work to view semantics as a tool part or component in Nida's well worked out structural

agenda of identifying and stating the distribution of morphemes. He defines morphemes as 'minimum meaningful units'. He reviews in his work briefly the definition of morphemes by Bloomfield : 'A linguistic form which bears no partial phonetic-semantic resemblance to any other form is..... a morpheme. (: 6-7). Rather than going negative about it Nida identifies morphemes by looking for similar forms with approximate meaning. Meaning approximation is based on comparison of forms. In isolating morphemes common semantic distinctiveness is adopted as a criterion as in 'driver' vs. 'wider'. er, and er_2 are two morphemes on the basis of meaning. Here there is a problem of semantics for the structuralist. He meets with difficulty in defining common semantic features of distinctiveness as in 'boyish' and 'manly' wherein both the meaning 'quality of' is in tact. But the former alludes to an unfavourable connotation. In the latter, as we evidently would be able to observe there is no unfavourable connotation. (: 7-8). As descriptive analysts we need not be concerned about explaining the 'why'-s of certain forms. As a result the semantic value of variant forms or allomorphs is a matter of favourable and convenient approximation mediated by structural distribution. The tactics of morphotactical enviroment, for a structuralist, refers to the meaningful relationship of forms to each other which enables Nida to digress the boarders of morphology and to enter into the less investigated area of syntax at that time. Syntax did not find much favour with Bloomfieldians although they were responsible for elucidating relevant facts on constituent structure of sentences through the Immediate Constituent Analysis (ICA). Remember, Nida specifics IC as 'the constituent elements immediately entering into any meaningful combination (: 87). Nida could establish that in forms like 'showed' and 'shown', whatever difference is there for -ed and -n it is only distributional. At the same time meaning is viewed as an aspect of 'significance' which enabled him to explain absence of allomorphs by positing a significant zero (: 46, 54) (eg. sheep + ø = plural vs. sheep (singular) (see also the morphological analysis of 'feet' as the plural of foot. Nida

confirms that 'we may say that feet actually consist of three morphemes : (i) the stem, (ii) the replacement of /u/ by/ iy/ and (iii) the zero suffix'. (:54)

Chomsky watchers can profitably be nostalgic here about his syntactic structures (1957) wherein he uses the term 'meaningful' and 'significant' as aspects of 'semantic sense' in connection with the discussion on grammaticality with the help of the famous and poetic examples : 'colourless green ideas sleep furiously' and 'furiously sleep ideas green colourless'. Nida is at home with homophonous forms which show distinctly different meaning constituting different morphemes (: 56). Read his categorical statement : 'Homophonous forms with related meanings constitute a single morpheme if the meaning classes are paralleled by distributional differences, but they constitute multipe morphemes if the meaning classes are not paralleled by distributional differences (: 56). Thus he brings in forms like 'they run', 'their run', 'run in her stocking' and 'pare' and 'pear' which are homophonous (: 56). In the former it is termed as associative while it is not in the latter. Here we get the allusion of degree of difference in meaning. Is meaning association a matter of degree? If so how is to be measured? Structuralists do not bother, it seems, to answer this since it does not raise a significant issue in his chosen exercise. There is no simple means of deciding whether forms are distinctly different or related in meaning. This makes Nida to conclude that homophonous forms have related meaning when they tend to identify regularly associated aspects of the same object, process or state. Further more, he lists the types of related areas of meaning : (: 56) :

1. Form and function : *horn* of an animal and *horn* as an instrument for providing sounds.
2. Process and result : *to run* and *a run in her stocking*.
3. Process and characteristically associated object : *to fish* and *the fish*.
4. State of being and causative of a state : *foul* (adjective) and *to foul up the job*.

5. Agent and process : *the man* and *to man the ship*.
6. Instrument and process : *a spear* and *to spear*.
7. Object and associated characteristic : *it is a pill* and *he is a pill*.
8. Form and process : *a cross* and *to cross*.

It is very often observed that structural linguistics has not done much in syntax as it was also the case with our traditional grammarians, of course with the latter's exercises in *kāraka* relations. Nida consolidates the principles of IC analysis. The first principle reads : IC 'divisions should conform to meaningful relationships (: 91), as in 'condenser' (condense + er) because 'condense' and 'denser' both make sense. But '-er' in both are different. '-er' in 'denser' is similar to '-er' in 'fuller' and 'darker'. Meaning is an important guide but it is not the only one. In some instances it is not reliable. In such cases what does count is substitutability. We can note that 'condense' and 'dance' are substitutable and 'con-' will not combine with comparatives. So '* confuller' is wrong. In 'disgrace + ful' and 'dis + graceful' we opt for 'disgrace + ful' because there is 'discountful' and 'faithful'. The meaning of 'full' is 'full of'. We analyse the meaning by looking the structural parallels.

Nida in his work makes it amply clear that the techniques of treating the meaningful units of a language are much less adequate than those for discovering its structure. We must make some attempt to describe the ways in which a language may symbolize phenomena (:151). Thus he proposes three principles which govern semantic analysis and classification. They are, (i) the non-existence of real synonyms (ii) the definability of meaning by enviroment (iii) the non-conformity between systems of symbolisation. According to the first principle no morpheme or combinations of morphemes are identical in meaning (: 151). It amounts to say that there are no real synonyms. Interestingly Chomsky (1957) adheres to this structuralist's position on synonymity to argue against the relevance of semantics in grammar by saying that the active and passive versions of a

sentence need not be synonyms as in, if 'Everyone in the room knows at least two languages' is true, then, 'At least two languages are known by everyone in the room' is not true. In one sense Nida had heralded the coming of this problem of semantics involving quantification well in advance for Chomsky which was raised against him to contradict his famous constraint of 1965 that the transformational rules do not change meaning. It has become part of transformational history that this constraint was responsible for the advent of generative semantic argumentation on the depth of the Chomskyian deep structure. Consequently the notion of deep structure was abandoned in favour of a more deeper semantic structure. It has also become part of history that generative semantics met with its own contradictions resulted from the nebulous subtlities of meaning and the plight of generating structures from it. Interestingly, the Chomskyian extensions to his own standard theory could in a sense stand the test of times allthough surface structures also became crucial for semantic interpretation.

Structuralists held that the matter of appropriateness involves the attitude and reaction of the speakers and hearers. There is nothing intrinsic about the semantic values, according to a social point of view, and in contrast to an asocial attitude a point was made that the semantic values are dictated by the reactions of language users to the socio-linguistic enviroment. It would be relevant here to read and compare the Labovian claims on linguistic variability and the notion of 'context of situation' of the Firthians. Structuralists were not against in considering meaning of every word and phrase to be learned with respect to their socio-linguistic environment. Environment can be lingustic or non-linguistic. Linguistic enviroment can be structural or contextual and mono-linguistic environment can be either objective (in the sense of object, relationship, abstraction, processes and states) and subjective (as connotation and denotation). Structuralists opined that symbolisation differ in the way in which they classify phenomena. No two languages according to them agree com-

pletely in the manner in which they classify phenomena. We can observe that the structuralists' analysis of meaning is directly concerned with the definability of meaning in different perspectives related to range of grammatical meaning, possession, tangibility, definiteness, number, location, cause etc. It is generally believed that among social sciences linguistics is the most developed in its formulation of theoretical constructs and argumentation proposing adequacy testing for grammars. Chomsky is mainly responsible for this. The fact that structuralists were ambitious in evolving discovery procedures was responsible for many of their limitations in dealing with adequacy.

We know that the term called 'structuralism' is a collective one involving the notion of various 'structuralist' stances in accounting for world phenomenon including language. It aims at perception and description of structures of different types in different systems. It is high time for us to properly evaluate the impact of 'structuralism' in our country as applied to phenomena under investigation in our studies and understandings. At the same time a review of our traditional grammars will have also be attempted in a large way. Mere quest for resorting to 'post' - prefixation in linguistics, literature and cultural studies would seem to be dubious. It will be to our utmost advantage to be fully aware of the subtle ramifications of structuralist principles and methodology as applied exhaustively and competently to linguistic and anthropological data before we succumb to our postmodern passions.

References

Bloomfield. L. 1933. Language. New York : Holt, Rinehart and Winston.

Chomsky. N. 1957. *Syntactic Structures* The Hague : Mouton.

Chomsky. N. 1965. *Aspects of the Theory of Syntax.* Cambridge : MIT Press

Harris. Z. 1951. *Methods in Structural Linguistics*, Chicago : Chicago University Press

Hawkes. T. 1977. *Structuralism and Semiotics*, London : Routledge

Katz J.J. & Foder J.A. 1963. *The Structure of a Semantic Theory*. Language : 39 : 170-210

Leech. G. 1974. *Semantics*.. Harmondsworth : Penguin

Nida. E.A. 1946. *Morphology— The Descriptive Analysis of Words*. Ann Arbour : The University of Michigan Press

Sapir. E. 1921. *Language*. New York : Harcourt, Prace and World. Inc.

METARULES OF PĀṆINI

J.P. Dimri

With reference to the verse given below six types of rules have been classified as per our tradition:

saṃjñā ca paribhāṣā ca vidhirniyama eva ca
atideśodhikāraśca ṣaḍvidhaṃ sūtra lakṣaṇam

These rules are: *saṃjñā sūtra* (definitions/technical rules), *paribhāṣā sūtra* (rules of interpretation or application), *vidhi sūtra* (operational rules), *niyam sūtra* (restriction rules), *atideśa sūtra* (extension rules), *adhikāra sūtra* (heading rules).

In addition to these rules, there are other rules such as *niṣedha sūtra* (negation rules), *nipāta sūtra* (adhoc rules) and *vibhāṣā sūtra* (optional rules).

All these rules can be grouped into two types: operational and applicational. These two groups of rules in turn can be subcategorised into *utsarga* (general) and *apavāda* (exception) rules.

Here we shall restrict ourselves to the treatment of metarules of Pāṇinian grammar. It may be noted that both *saṃjñā* and *paribhāṣā* rules can be treated as an integral part of the metalinguistic language of Pāṇini. For example, *pratyāhāra sūtra* for markers or symbols, technical terms such as *ṭī*, *bha*, etc.

Applicational/interpretive rules are traditionally termed *paribhāṣās*; Pāṇini does not use the term *paribhāṣā* in his *Aṣṭādhyāyī*. While it is Patañjali who makes use of the term *paribhāṣā*, he does not propose its definition. It is interesting to note that Patañjali compares *paribhāṣā* with a lamp, which, being situated in a place, illuminates the whole place.

As such, the applicational rules also include definitions/technical rules.

Pāṇini's *Aṣṭādhyāyī* has about seventy-five *paribhāṣā sūtras*. Most of these *sūtras* are listed in the first *adhyāya* of the *Aṣṭādhyāyī*.

In addition to *paribhāṣā sūtras* of Pāṇini, *paribhāṣās* have been discussed and critically examined in the *Paribhāṣenduśekhara* of Nāgeśa Bhaṭṭa and also in the *Paribhāṣāvṛtti* of *Vyāḍi*. *Paribhāṣenduśekhara* of Nāgeśa Bhaṭṭa is the most important work among the collection of *paribhāṣas*. *Paribhāṣenduśekhara* has examined about 132 *paribhāṣās*. Vyāḍi's *Paribhāṣavṛtti*, edited and translated by Dominik Wujastyk (1993), discusses 87 *paribhāṣās*.

The function of an interpretive/applicational rule is to ensure that the operation rules do not suffer from *doṣas* (faults) such as *ativyāpti* (over-application), *avyāpti* (under-application) and *asambandha* (irrelevant application). So the role of an interpretive rule is to assist operation rules to determine their jurisdiction of application. Dominik Wujastyk (1993) translates the term *paribhāṣā* as 'metarules', 'principles', 'theorems' or 'auxiliary hypotheses'.

Nāgeśa Bhaṭṭa right in the very beginning of *Paribhāṣenduśekhara* groups *paribhāṣas* into the following three categories:[1]

1. *vācaniki:* interpretive rules explicitly stated by Pāṇini in *Aṣṭādhyāyī*,
2. *jñapakasiddha:* interpretive rules, which Pāṇini must have implicitly assumed;
3. *nyāyasiddha:* interpretive rules, which owe their importance to the norms of the outside world and are supposed to be based on common sense.

Vidya Niwas Misra (1966, p. 33) classifies interpretive rules of Pāṇini into five types.

---

1. *prācīna vaiyākaraṇatantre vācanikānyatra pāṇinīyatantre jñāpakanyāyasiddhāni bhāṣyavārtikayorupanibaddhāni yāniparibhāṣārūpāṇi tāni vyākhyāyante* . See also Rāma Nath Sharma 1987, *The Aṣṭādhyāyī of Pāṇini*, Vol. I, p. 106.

Let us consider the nature of some of the *paribhāṣā sūtras*[1] of Pāṇini.

(i) *ādyantau Ṭakitau* 1.1.46 (an increment addition) marked with *Ṭ* as it constitutes the initial (*ādi*) of the unit to which it is added, and one marked with *k* as it constitutes the final (*anta*). For example: *bhū* + *tum* = *bhū* + *iṬ* + *tum* (iṬ by 7.2.35) = *bhavitum*

(ii) *taparastatkālasya* 1.1.70. A (vowel) phoneme followed or preceded by marker *T* denotes a homogeneous phoneme of its time duration (*tat- kālasya*).

(iii) *tasminniti nirdiṣṭe pūrvasya* 1.1.66. A form stated in the locative case denotes an element, the unit preceding which (*pūrvasya*) is subject to the grammatical operation introduced by that statement.

This *paribhāṣā-sūtra* indicates 'the right context', before which the operation takes place. For example, in the *sūtra— iko yaṇ aci* 6.1.77 *aci* is in the locative case and denotes the 'right context' before which the phonological operation takes place.

(iv) *tasmādityuttarasya* 1.1.67. A form stated in the ablative case denotes an element, the unit following which is subject to the grammatical operation introduced by the rule.

This *paribhāṣā sūtra* denotes 'the left context', after which the operation takes place. For example, in the *sūtra— tiṅṅ atiṅaḥ* 8.1.28 *atiṅaḥ* is in the ablative case and denotes a *pada*, which ends in a verbal ending (*tiṄ*) and follows a *pada* which does not end in a verbal ending (*atiṄ*), and has no *udātta* accent. Thus, 8.1.28 assigns *anudātta* to *pacati* in the sentence *sa odanaṃ pacati* 'he cooks rice' only when *pacati* occurs after a non-*tiṄ pada*.

(v) *ṣaṣṭhi sthāne yoga* 1.1.49. The sixth (*ṣaṣṭhi*) *sUP* triplet is used to indicate that the expression, after which it is introduced, is the substituendum.

1. Translation of *sūtras* of Pāṇini is from the English Translation of *Aṣṭādhyāyī* of Pāṇini by S.M. Katre.

This *paribhāṣā sūtra* explains the use of the genitive case, which stands for the substituendum on which the rule operates. For example, in the *sūtra— iko yaṇaci* 6.1.77, *ikaḥ* is in the genitive case and it means 'in the place of *iK*'.

These metarules explain the use of three cases: ablative, genitive and locative in the formulation of the *sūtras*.

In other words, these *paribhāṣā sūtras* determine the domain of phonological/grammatical operations.

(vi) *svaritenādhikāraḥ* 1.3.11. Elements, which are to serve as governing rules (*adhikāra*) or section headings valid in the subsequent rules, are marked with the *svarita* 'circumflex' accent.

This *sūtra* defines the jurisdiction of a rule.

(vii) *vipratiṣedhe paraṃ kāryam* 1.4.2. When there is incompatibility between two rules, which can equally apply in a given domain, what is provided by the subsequent rule should operate.

This *paribhāṣā sūtra* determines the order of rules.

Thus, the function/objective of these *paribhāṣā sūtras* is to define the *vidhi sūtras* (operational rules) and also to demarcate their domain of application.

Vidya Niwas Misra (1966, p. 102) gives the following purposes of the interpretive rules:

(i) to relate the definition rule to the main description rule as also one description rule with other;

(ii) to delimit the scope of a designation (*samjña*) or a rule;

(iii) to assign precise mathematical significance to the notational symbols and terms used together with their inflectional endings;

(iv) to ordain the successive order of operation and determine the relative force of more than one conflicting rule;

(v) to serve as a 'metatheorem' in logical terms.

So far we have noted the function of *paribhāṣā sūtras* as metarules. It is also to be noted that Pāṇini also makes use of accent as a metalinguistic device. Accent is used to denote the voice of a *dhātu* (verbal stem/root). The *sūtra—anudāttaṅitātmanepadam* 1.3.12 states that the *ātmanepada* (middle-voice) endings are attached to verbal roots marked by an *anudātta* vowel or Ṅ as *it* (marker). *Anudātta* accent is therefore used to indicate the *ātmanepada*. Similarly the *sūtra—svaritañitaḥ kartrabhiprāye kriyāphale* 1.3.72 states that the *ātmanepada* endings are introduced after a verbal stem marked with a *svarita* accent or Ñ as *it* (marker), if the result of the action is intended for the agent. The metarule *anudāttam padamekavarjam* 6.1.158 assigning accent states that, with the exception of one syllable (for which an *udātta* 'high-pitch' or svarita 'circumflex', 'high and low pitch' accent is introduced), a *pada* bears the *anudātta* 'low pitch' accent.

The accent rules assign either an *udātta* or *svarita* accent on a particular syllable of a *pada*, the rest bearing the *anudātta* accent. A *prātipadika* (nominal stem) or a *dhātu* (verbal stem/root) or a *pratyaya* (affix) has its particular *udātta* or *svarita* accent and, when a word is formed with a combination of stem and affix, the word bears the *udātta* or *svarita* accent on a single syllable, the rest being *anudātta*.

To conclude, it may be inferred from our preceding discussion that Pāṇini makes use of markers, accent and case endings as metalinguistic devices for the description of operation rules.

References

Aṣṭādhyāyī of Pāṇini. English translation by S.M. Katre, Motilal Banarasidass, Delhi : 1989.

Rāma Nath Sharma. *The Aṣṭādhyāyī of Pāṇini*, Vol. I, Munshiram Manoharlal Publishers, New Delhi : 1987.

Ibid. The Aṣṭādhyāyī of Pāṇini. Vol. II, Munshiram Manoharlal Publishers, New Delhi : 1990.

Paribhāṣenduśekhara of Nāgeśa Bhaṭṭa.

Dominik Wujastyk. *Metarules of Pāṇinian Grammar, Vyāḍis Paribhāṣāvṛtti*, Vols. I and II, Egbert Forsten, Groningen, The Netherlands : 1993.

Vidya Niwas Misra. *The Descriptive Technique of Pāṇini*, An Introduction, Mouton, The Hague : 1966.

George Cardona. *Pāṇini : A Survey of Research*, Mouton, The Hague : 1976.

PĀṆINI AND METAPHOR

K. KUNJUNNI RAJA

I HAVE elsewhere pointed out that Pāṇini and Yāska were primarily concerned with *abhidhā,* the significative power of words which depends on the permanent relationship between the word and its meaning; and had not accepted metaphoric transfer or metonomy (*lakṣaṇā* or *gauṇī*) as distinct functions (*vṛtti*) of words, but included instances of these instances under primary meaning itself.

Laksaṇā or metaphoric transfer was introduced into Indian hermeneutics by the Mīmāṃsā school to defend its basic and fundamental assumption that the Vedic texts are authoritative and infallible unlike classical texts; to explain away apparent absurdities, self-contradictions, and impossible statements, it had to accept metaphoric transfers and metonymies (*lakṣaṇā* and *gauṇī*). Thus *ādityo yūpaḥ* (the sacrificial post is the sun) has to be interpreted to mean that 'the post is polished and brilliant as the sun'. The Nyāya school also accepted *lakṣaṇā* in interpreting apparently absurd sentences. Later all other schools, including even to Pāṇinian school accepted *lakṣaṇā.* Towards the close of the ninth century Ānandavardhana introduced a third potency for words and sentences which he called *vyañjanā* or suggestion. This was accepted by all literary critics who followed Ānandavardhana.

In Pāṇini's *Aṣṭādhyāyī* the role of *lakṣaṇā* or metaphoric transfer (including metonymy) is not discussed at all, even though it is obvious from some of his *sūtras* that he was not unaware of the existence of faded metaphors and transferred use of words in language.

I

In *sūtra* II. 3. 46 प्रतिपदिकार्थलिङ्गपरिमाणवचनमात्रे प्रथमा Pāṇini sanctions the nominative case-ending (*prathamā*) not only for the primary sense of the stem (*prātipadikārtha* or the nominal stem notion), but also for indicating the additional notion of the gender, the measure (*parīmāṇa*) and the number. [For a detailed discussion of the *sūtra* see Paul Thieme, 'Pāṇini and the Pāṇiniya-s' (*JOAS*, vol. 76, pp 1-10)]. 'The nominative ending is to be added when there is nothing but the nominal stem notion, nothing but the gender, nothing but the measure, nothing but the number). From the discussion of the term *parimāṇa* in this *sūtra* by later commentators beginning with Patañjali (p. 461, Kielhorn's ed. 1892), it is clear that Pāṇini wanted to justify the nominative ending in transferred uses like that of the container for the contained, by specially referring to it in the *sūtra*. Patañjali is quite brief on this point:

अथ परिमाणग्रहणं किमर्थम्? 'द्रोण: खारी आढकम्' इत्यत्रापि यथा स्यात्।
(What is the purpose of the term *parimāṇa* here?) It is to have the nominative ending in cases like *droṇaḥ, khāri* and *āḍhakam* (different measures of grain etc.). He does not elaborate the point that the term is used to justify the nominative ending for words like *droṇa* when they mean 'a quantity that can be contained in a *droṇa*'. Kaiyaṭa too, is content with explaining the meaning of the term, and does not point out that it could be extended to other cases of transfered use.

यदा मानमेयसंबन्धाद् व्रीह्यादौ द्रोणादयो वर्तन्ते, तदा व्यभिचारान्नास्ति मेयस्य प्रातिपदिकार्थत्वम्।

(*Pradīpa*, NS ed. Vol. II, p. 513)

It is Jinendrabuddhi who explains that the transferred use of the container for the contained in this *sūtra* is to be taken as a sort of *upalakṣaṇa* or sub-suggestion so that all other transferred senses like *siṃho māṇavakaḥ*, 'The boy is a lion' are also accounted for in this way.

तेन परिमाणग्रहणस्यैवोपलक्षणार्थता विज्ञायते।

(*Nyāsa* or *Kāśikā*, Varendra Research Society, 1913-16, p. 423)

In the *Bhāṣāvṛtti* Puruṣottamadeva points out in this *sūtra* that *prātipadikārtha* refers to the primary sense of words, and *parimāṇa* to the transferred usage.

यत्राद्या शब्दस्य वृत्तिः स प्रातिपदिकार्थः।.. परिमाणमुपचारः। तदधिकमात्रे प्रस्थेन परिमितो व्रीहिः प्रस्थः द्रोणः खारी आढकं व्रीहिः।

In the *Prakriyāsarvasva*, Nārāyaṇa Bhaṭṭa elucidates this point clearly thus:

प्रस्थाद्या मानपात्रार्थास्ते तत्परिमिते यदा।
व्रीह्यादिके प्रवर्तन्ते 'प्रस्थो व्रीहि'रसाविति॥

तदा परिमितत्वाख्यो धर्मोऽस्ति स्वार्थतोऽधिकः।
तत्रापि प्रथमासिध्यै परिमाणपदं विदुः॥

तथाग्निर्विप्र इत्यग्नितुल्यता स्वार्थतोऽधिका।
तेनार्थान्तरवृत्तीनां प्रथमात्रोपलक्ष्यते॥

(TSS. 174. p. 111)

(The term *parimāṇa* is said to be for sanctioning the nominative in cases like *prastho vrīhiḥ*, 'a *prastha* measure of grain' where there is the additional notion of 'being measured by'; hence even in cases like 'the Brāhmaṇa is five' is to be indicated, the nominative ending is justified here).

In the *Siddhāntakaumudi* Bhaṭṭoji does not make the point clear; he merely explains use *droṇa vṛīhiḥ* : 'द्रोणरूपं यत् परिमाणं तत्परिच्छिन्नो व्रीहिः' इत्यर्थः। प्रत्ययार्थे परिमाणे प्रकृत्यर्थो भेदेन संसर्गेण विशेषणम्। प्रत्ययार्थस्तु परिच्छेद्यपरिच्छेदकभावेन व्रीहौ विशेषणमिति विवेकः।

In his earlier work *Śabdakaustubha* Bhaṭṭoji says that the term *parimāṇa* could be dispensed with here, since such expressions could be explained with reference to the *gauṇī vṛtti* or *lakṣaṇā*.

परिमाणमप्यनर्थकं 'गौर्वाहीकः' इत्यादाविव मुख्यार्थमात्रे प्रथमायां सत्यां पदान्तर समभिव्याहारेण गौणार्थप्रतिपत्युपपत्तेः। वाहीके गोत्वस्येव व्रीह्यादौ द्रोणत्वादेरारोपसंभवात्।

(Chow. ed. 1898, p. 684)

From the above it is clear that Pāṇini did not accept *lakṣaṇā* as a separate *vṛtti* (function) of words, for otherwise he would not have included *parimāṇa* in this *sūtra* to justify transferred uses.

II

Explaining the *sūtra* (1.4.42) साधकतमं करणम्। Patañjali says that the use of the superlative *tama* here is to indicate that the rules relating to the *kāraka-s* may be applied even in extended cases.

लोकत एतत् सिद्धम्। तद्यथा लोके 'अभिरूपायोदकमानेयम्' 'अभिरूपाय कन्या देया' इति। न चानभिरूपे प्रकृतिरस्ति। तत्राभिरूपतमायेति गम्यते। एवमिहापि........... एवं तर्हि सिद्धे सति यत् तमपग्रहणं करोति तज्ज्ञापयत्याचार्यः कारकसंज्ञायां तरतमयोगो न भवतीति। किमेतस्य ज्ञापने प्रयोजनम्' अथायमाचार्यः किं न्याय्यं मन्यते यत्र संप्राप्य निवृत्तिः। तेनेहैव स्यात्। ग्रामादागच्छति नगरादागच्छतीति। सांकाश्यकेभ्यः पाटलि पुत्रकाः अभिरूपतरा इत्यत्र न स्यात्। कारकसंज्ञायां तरतमयोगो न भवतीत्यत्रापि सिद्धं भवति। तथाधारमाचार्यः किं न्याय्यं मन्यते। यत्र कृत्स्न आधारात्मा व्याप्तो भवति। तेनेहैवस्यात्। तिलेषु तैलं दध्नि सर्पिरिति। गङ्गायां गावः।'कूपे गर्गकुलम्' इत्यत्र न स्यात्। कारकसंज्ञायां तरतमयोगो न भवतीत्यत्रापि सिद्धं भवति।

Even without the superlative degree the idea could be got from the context : 'Bring water to the suitable person', 'The girl must be given in marriage to a suitable man'. Only to a suitable person the action is intended. It is clear that the girl must be given in marriage to the most suitable man available. Hence in this *sūtra* the superlative degree seems unnecessary. The special mention of the superlative suffix therefore shows that in the *kāraka* section of grammar the rules apply not only to those expressly stated, but also to those implied thereby. Thus instances of implied usages or *lakṣaṇā* could also come under the field of action of the *sūtra*. Instances like *gaṅgāyām gāvaḥ*, 'Cows on the Gaṅgā' can be considered as coming under the purview of the regular rules, since proximity can be taken as one of the meanings of the locative case.

In the *Śabdakaustubha* Bhaṭṭoji puts it succinctly:

अस्मिन् प्रकरणे सामर्थ्यगम्यप्रद.र्षो नाश्रीयते इति ज्ञापयितुं तमप्। तेन गङ्गायां घोष इति सिद्धम्।

Patañjali has stated more than once that *adhikaraṇa* .or the location, to indicate which the locative case ending in added is of three kinds : (1) *vyāpaka* or pervading throughout, (2) *aupaśleṣika* or proximate and (3) *vaiṣayika* or sensual or conceptual.

(a) संहितायाम् (VI. 1. 72) . . . अधिकरणं नाम त्रिप्रकारं, व्यापकमौपश्लेषिकं वैषयिकमिति। शब्दस्य शब्देन सह कोऽन्योऽभिसंबन्धो भवितुमर्हति अन्यत उपश्लेषात्। 'इको यणचि' अचि उपश्लिष्टस्येति।

(b) 'तदस्मिन्नधिकमिति दशन्ताड्डः' (V. 2. 45) यद्यपि तावद् वैषयिके वाधिकरणे संभवो नास्ति। औपश्लेषिकमधिकरणं विज्ञास्यते।

The first variety of location, namely *vyāpaka*, is exemplified by instances like *tileṣu tailam*, 'oil in sesame', and *dadhni sarpiḥ*, 'butter in curd'. This is the primary sense of location; the other two types are instances of *lakṣaṇā*. The term *aupaśleṣika* is explained thus :

उप समीपे श्लेषः संबन्धः। तत्कृतमौपश्लेषिकमिति व्युत्पत्या सामीपिकमेवाधारत्व-मौपश्लेषिकम्।*

Thus the locative *aci* in the *sūtra* इको यणचि is explained by Kaiyaṭa as अच् समीपोच्चरितस्य। Instances like *gaṅgāyām ghoṣaḥ* 'The village is on the Ganges' are given as examples of *aupaśleṣika* type of *adhikaraṇa*. Thus proximity is taken as one of the meanings of the locative case-ending according to Pāṇini as explained by the commentators.

In my look on *Indian Theories of Meaning* I had stated "In Sanskrit nobody seemed to have considered the possibility of taking one of the meanings of the locative case to be proximity" (p. 232). This needs correction. In his review of my look in *BSOAS* (vol. 28, 1965, p. 164) Professor Wright had suggested a new *vārttika* सप्तमी सामीप्ये च। There is no need for it, since Pāṇini and Pāṇinīyas have accepted proximity as one of the primary meanings of the locative case.

III

Even in the case of faded metaphors the Pāṇinīya tradition is not to treat them as metaphors, but to consider them as due to

---

* *Balamanoramā* on *Saptamyadhikareṇa ca*

the elision of some word assumed to have existed along with them (*uttarapadalopa*).

(a) Pāṇini derives *chātra*, 'a student' from *chatra*, 'an umbrella' (छत्रादिभ्यो णः IV. 4. 62). *Mahābhāṣya* says : किं यस्य छत्रधारणं शीलं स छात्रः। किं चातः। राजपुरुषे प्राप्नोति। एवं तर्हि उत्तरपदलोपोऽत्र द्रष्टव्यः। छत्रमिव छत्रम्। गुरुच्छत्रम्। गुरुणा शिष्टः छत्रवद् छाद्यः। शिष्येण च गुरुच्छत्रवत् परिपाल्यः।

(b) The terms *śītaka* and *uṣṇaka* (in the sense of 'lazy' and 'quick' respectively) are derived from *śīta*, 'cold' and *uṣṇa*, 'hot' (शीतोष्णाभ्यां कारिणि। (V.2.72). Patañjali explains उत्तरपदलोपोऽत्र द्रष्टव्यः। शीतमिव शीतम्। उष्णमिवोष्णम्। य आशु कर्तव्यानर्थान् चिरेण करोति स उच्यते शीतक इति। यः पुनराशु कर्तव्यानर्थानाश्चेव करोति स उच्यते उष्णक इति।

(c) The term *pārśvaka*, 'one who seeks wealth by indirect means' is derived from *pārśva*, 'side', by the *sūtra* पार्श्वेनान्विच्छति (V.2.75). *Mahābhāṣya* explains : उत्तरपदलोपोऽत्र द्रष्टव्यः। पार्श्वमिव पार्श्वम्। य ऋजुनोपायेनान्वेष्टव्यानर्थान् अनृजोपायेनान्विच्छति स उच्यते पार्श्वक इति।

(d) The term *āyaḥśūlika*, 'one who uses violent means' is derived from *ayaḥśūla*, 'iron lance' अयः शूलदण्डाजिनाभ्यां ठक्ठञौ। (V. 2.76). *Mahābhāṣya* explains उत्तरपदलोपोऽत्रि द्रष्टव्यः। अयः शूलमिवायः शूलम् यो मृदुनोपायेनान्वेष्टव्यानर्थान् रभसेनान्विच्छति स उच्यत आयःशूलिकः।

It may be noted that in all these cases of faded metaphors Patañjali does not refer to *lakṣaṇā*, but resorts to the elision of an assumed word.

Similar is the case of instances like ग्रामो दग्धः, 'The village is brunt' and पटो दग्धः, 'The cloth is brunt'. Here only part of the village and part of the cloth is actually burnt. Patañjali explains such shifts by assuming a possessive suffix which is supposed to have elide (or replaced by a zero suffix)

See *Mahābhāṣya* under *sūtra* 1.2.45. आढ्यमिदं नगरमित्यकारो मत्वर्थीयः। आढ्या अस्मिन् सन्ति। तदिदमाढ्यमिति। गोमदिदमिति मत्वन्तान्मत्वर्थीयो लुप्यते।

Laghumañjūṣā makes Pāṇini's position clear : ग्रामो दग्धः, पुष्पितं वनमित्यादौ दग्धादिपदानि अर्शआद्यजन्तानीत्यर्थवत्सूत्र भाष्योक्तेस्तत्र लक्षणैव नेति बोध्यम्। See also *jyotsnā* on *PaRāmalaghumañjūṣā* (M.S. Univer-

sity, Baroda 1961, p. 59): 'आढ्यमिदं नगरम्' इति भाष्योक्तरीत्या 'ग्रामो दग्धः' इत्यादौ लक्षणाया अभाव एव।

Even in instances like *nīlo ghaṭaḥ*, 'The pot is black' where the term *nīla* primarily means the black colour, but is used in the sense of 'something which has the black colour', the grammarians resort to the elision of an assumed possessive suffix whereas the Naiyāyikas explain such usages by resorting to *lakṣaṇā*. See *Siddhāntamuktāvalī* (KSS. 1951, p. 272) नीलादिपदानां नीलरूपादौ नीलविशिष्टे च शक्तिः कोशेन व्युत्पादिता। तथापि लाघवान्नीलादावेव शक्तिः नीलादिविशिष्टे तु लक्षणा।

In the case of compound words also the grammarians do not recognize *lakṣaṇā*, unlike the Naiyāyikas, but assume a special power to explain the new meaning distinct from these of the component members. समासे खलु भिन्नैव शक्तिः।

V. Bhūṣaṇa V. 31

IV

In the *Vākyapadīya* Bhartṛhari distinguishes between *ekaśabdavādins* and *anekaśadavādins*, between homonymns and homophones. How to distinguish between 'a word having two meanings' and 'two words having the same form'. According to those who hold that a word can have more than one meaning, it is possible one is the primary meaning and the other secondary metaphoric meaning. According to one school the relation between the primary and secondary meaning may be based on the relative frequency of usages

अनेकार्थत्वमेकस्य यैः शब्दस्यानुगम्यते।
सिद्ध्यसिद्धिकृता तेषां गौणमुख्यप्रकल्पना॥ II. 265
सर्वशक्तेस्तु तस्यैव शब्दस्यानेककर्मणः।
प्रसिद्धिभेदात् गौणत्वं मुख्यत्वं चोपवर्ण्यते॥ II. 255

Thus who hold that a word can have only one sense consider that the word having the primary sense and the word having the secondary sense are different even though they have the same form. According to another view the primary meaning is the well-

known one, depending only on the form and the secondary meaning is the one established with effort with the help of the context.

V

In the *vidhi sūtra* Pāṇini enumerates all the shades of meaning of *liṅ : vidhi, nimantraṇa, āmantraṇā* etc., many of these could have been brought together as *pravartanā*.

It seems that Pāṇini did not recognize *lakṣaṇā* as a distinct function in language even though later grammarians have to accommodate it since it had become universally accepted. Nāgoji Bhaṭṭa who discusses *lakṣaṇā* at length in the *Laghumañjūṣā*, later says in the *PaRāmalaghumañjūṣā* that according to the grammarians there is no necessity to accept *lakṣaṇā* as a separate function of words:

> सति तात्पर्ये सर्वे सर्वार्थवाचका इति भाष्याल्लक्षणाया अभावात्, वृत्तिद्वयकल्पने गौरवात् जघन्यवृत्तिकल्पनाया अन्याय्यत्वाच्च। कथं तर्हि गङ्गापदात् तीरप्रत्ययः। भ्रान्तोऽसि। 'सतितात्पर्ये सर्वे सर्वार्थवाचकाः' इति भाष्यमेव गृहाण। शक्तिर्द्विधा प्रसिद्धा अप्रसिद्धा च। आमन्दबुद्धिवेद्यत्वं प्रसिद्धत्वं, सहृदयहृदयमात्रवेद्यत्वमप्रसिद्धत्वम् ॥

It may, however, be noted that the passage referred to here is not found in the *Mahābhāṣya*. 'सर्वे सर्वार्थवाचकाः' here seems to be the same as *yogyatānityatva* referred to by Bhartṛhari.

SEMANTIC PROBLEMS IN THE COMPUTATION OF PĀṆINIAN RULES

VEDA VĀRIDHI P. RĀMĀNUJAN

Abstract

IN OUR effort to computationally render Pāṇini's grammar, few insights were gained as to the nature of various concepts dealt with therein and there are quite a few issues which have no satisfactory method of handling at the moment. These obviously pertain to the semantics covered/sought to be conveyed by different word categories, as described by sage Pāṇini.

Development of a working ontology and rulebase to check compatibilities (logical, conceptual, socio-cultural etc.) during sentence analysis (syntactic parsing) are highlighted in the experience of the *DEŚIKA* software development. *Śābda-bodha* analysis is described mainly from Vaiyākaraṇa's point of view, as illustration. Proposed work on compound words analysis and dissolution is also outlined. Vedic text analysis is also mentioned for the sake of completeness.

Since all these issues revolve around semantic representation/extraction, a few thoughts are shared on a possible analysis system to be devised for general-purpose use.

Introduction-Sanskrit Language : Salient Features

The language Sanskrit is highly 'inflected' (case-based). To have an idea of what inflections mean, let us take a noun (सुबन्त) like राम: (Rāma). To denote various things about 'Rāma', one could proceed either with additional words or inflect (i.e. modify) this base word 'Rāma' with the addition of certain suffixes. These

suffixes and the various things they can mean regarding 'Rāma' are fixed relations called case-relations, besides gender and number. These apply to all nouns.

Similarly, verbs (तिङन्त) also get inflected to denote various things like voice, mode, tense/mood, person, number, meaning, etc. These apply to all roots and are a fixed set of modification to the root meaning. Thus, from a same base, many forms get generated which serve the purpose of certain equivalent phrases in languages like English. But these have an inherent inference-generating capability through the expectancies raised and hence help in analysis.

There is also a small set of words which are not inflected and these are termed as indeclinables (अव्यय). These correspond to prepositions, conjunctions, interjections, particles etc. and have certain fixed meanings at sentence level. Technically, these are also formed by nominal suffixes, but later lose their terminations and so do not admit of declensions or inflections.

Sentence Features

Nominals are those (nouns) which denote substances related through case-relationships (agency etc.) with respect to verbal meanings (activities), in a sentence. At sentence level, even words require other words, to convey a complete sense or message. A mere noun does not convey a whole idea devoid of a verb or activity marker. For example, रामात् means 'from Rāma'. Similarly, a verb alone would also generate expectancies before a complete sense can be perceived. For example, खादति means '(third person, singular) eats'. This necessarily throws up the expectancies as to 'who' eats and eats 'what'?

If we observe the two examples cited above, we also notice the composite feature of words, nominal or verbal. That is, there is always a case-relation denoter associated with the concept denoted, like the person 'Rāma' in 'from Rāma', 'by Rāma', 'to Rāma', 'of Rāma', 'in Rāma' etc. In this sense, Sanskrit (and many Indian languages based on it) differs from English-like languages and this factor contributes to the relatively 'free-word-order'. One moves around only finished words and hence, the meanings are

not altered. This is tantamount to saying that while there is no concept of clauses or phrases in Sanskrit (a sentence is defined as just a collection of words of nominal or verbal type), the word order corresponds to shifting clauses around in English-like languages.

To illustrate, a sentence like 'Lakṣmana learnt archery from Rāma (लक्ष्मणः रामात् धनुर्विद्यां अधिजगाम)' in English would change its meaning if Rāma and Lakshmana are interchanged, as it is dealing with the concepts and relations separately. In Sanskrit, an interchange can only take place between 'from Rāma' and 'Lakshmana' as those are the two words in question. Even in English, these clauses, if interchanged, do not alter the sense as in 'From Rāma, Lakshmana learnt archery'.

Nominals—Simple Word Structure

The variations in the semantics 'intended' in a sentence are effected by proper choice of suffixes. Suffixes are employed to modify or qualify base concept meanings in a variety of ways. Also, various parameters are subject to modification or specification. The former involves phonological and morphological processes by way of elision, substitution or augmentation of lexemes, phonemes or morphemes, within or between words. These may take place before, within or after the bases with or without alteration in base form. The latter involves semantic processes and intention based details.

Derived Word-Structure

The nominal word class may also be intended to convey some activity relationship, when the noun becomes a 'primary or verbal derivative' (कृदन्त). In this case, the (semantic or derivative marker) suffixes are inserted between the base and terminating nominal suffixes. There are over a hundred suffixes in this category. *Kṛdantas* may take preverbs. Examples of *kṛdantas* with the 'semantic aspects' are :

(i) functor relations' as in पाचकः ('one who cooks'), शिक्षकः ('one who teaches'), artisan etc., where 'agency' of a related

activity is denoted, 'objects' of contempt, instrument, direct object, location, time or season, locus or substratum, cause;

(ii) derivation an action or abstract noun like पाकः (cooking activity), शयः (sleep), कृतिः (an act accomplished), state or condition, being prone, dependence, necessity as in कर्तव्यम् (a thing that should be done), दर्शनीयम् (something worth seeing or must be seen);

(iii) denoting 'names', comparison, repetition, measure, 'attributes' like age, capacity, duty, efficiency, surety, general future, desire, excellence, habitual disposition, compliance;

(iv) denoting 'tenses' like object denoting general past, कृतम् (a thing that is done), हतवान् (happens to have killed), past excluding current day, remote past, recent past, present tense (continuous) as in पचन् (one who is currently cooking), यजमानः (one who is presently sacrificing), prior-activity in a sequence, sigmatic and periphrastic future 'and moods' like imperative, optative, benediction, etc.

There are also 'secondary or nominal derivatives (तद्धित)' which denote nominal relationships like descendency, patronymy, tribe, ancestry (e.g, the Smiths, Johns etc.), origin (Indians, Scots etc.), certain space-related processing (field-dried, oven-cooked, red-hot etc.), properties like being associated with certain time-denoters (full-moon day etc.), being dyed (saffron-cloth), being propounded (hymn perceived by Vasiṣṭha) etc. and there is also a list of such nominal stems which share common nominal derivatives as a class given in Pāṇini's गणपाठ . The primary and secondary derivatives are single word forms giving more than just the noun meaning, gender, number and case-relations as do ordinary nominal forms. Thus, these function like compound words.

Compound Word Structure

Compound words have more than one word type joined by the process of compounding which is distinct from *sandhi* morphologically. Nouns, verbs and indeclinables can join together

with words of similar or dissimilar types. Various kinds of compounding processes are described in grammar and these modify the sum total of individual component word meanings in various ways like prominence for the first, last or all words of the compound or an external object not denoted by the constituent words etc.

Verbals— Simple Word Structure

Now, turning to 'verbal forms', these are formed from verbal roots which denote certain activity (verbal meaning) and suffixes including the verbal terminating suffixes. The roots could also be derived ones denoting some extra information like causative, desiderative, intensive or frequentative modes (involving certain morphological processes and mode suffixes). The verbal suffixes indicate details like tense, mood, person, number, voice, usage (fruit of action accruing to self/agent or others) etc. Verbs take a large number of forms compared to nouns (typically nouns take 24 forms while verbs over 1000 forms) to denote the said aspects. Verbs are gender-invariant in Sanskrit.

Compound Words Structure

Verbs may take 'preverbs' (उपसर्ग) which may affect the verbal root meaning (positive, nil or negative effects). Certain morphological changes are also brought about by preverbs. Actually, addition of preverbs compound the verbs, which then convey modified verbal meanings. There are 20 preverbs which may be used singly or in combinations. Upto 3 preverbs have been employed with verb roots in literature.

Regarding 'verbal meanings', there are about 2000 roots grouped into 10 गणs or conjugations. Some roots have multiple meanings as also many roots having synonymous meanings. The actual meanings that are denotable by roots used alone and with preverbs are difficult to be precisely established as usage also is to be considered. Besides, the verbal meanings in terms of

transitivity (intransitive, transitive and ditransitive), voice, mode etc., are also subject to modification by preverbs, context etc. We could take only pure verb-root meanings and arrive at a simplified meaning analysis, to begin with.

The verbal meanings are related to noun meanings in a sentence through fixed expectancies depending on the activity. This is expressed in terms of syntactic and semantic conditions like the functors to be present, the optional ones and the inhibited ones for particular activities. The conceptual or ontological type of the functors also needs specification for ascertaining logical compatibility.

We use the above-mentioned factors while generating word-forms or sentences, choosing proper suffixes and the rules to combine them for the user specified bases/roots and semantic conditions. The reverse process is needed to recognise given finished words or sentence into the syntactic categories and extract the semantic information.

Grammatical Analysis

The process of grammatical analysis ensures arriving at the proper meanings for valid inputs. The general approach could be as follows :

Start with the verb : the verb indicates the details such as the activity, agent type (person and number), tense/mood, voice, transitivity, accent etc. These are further used to determine the various *kārakas*. Here, Appendix-3 gives the mapping between *kārakas* and *vibhaktis* (case relations and syntactic case-endings).

If no verb is present, look out for participial forms to get the information about activity. Even if it is absent, then the word with nominative case ending is taken as the starting point and a different procedure applies. If more than one verb is present, determine main and secondary verb(s). If the same word could have identification as both noun and verb, it is treated for one identification at a time. Though a single verb is sufficient to make a sentence, there are cases of more than one verb being used. For

example, 'see, the deer runs', 'the man is leaving, salute him', 'the dancer sings and dances happily' etc.

From the verb, when the question 'who' is put, the word answering this question, occurring in the sentence, is taken as the 'agent'. All activities must have an agent mandatorily. A primary agent is one who independently performs the activity and hence, is most usually a sentient being (except in case of state acts such as 'existing'). If more than one candidate exists, the possibilities of having more than one agent, e.g., 'Rāma and Hanuman burnt Lanka to ashes', 'the bridge was built by Rāma and the monkeys' etc., where some conjunction denoter is present or the agent having any qualifier/adjective is to be determined by repeating/splitting the question 'who' suitably. In Sanskrit, as adjectives belong to noun category itself, the agreement between gender, case and number, besides Lexicon, could guide this decision.

When the question 'what', 'whom' or 'which' etc., is put, the answering word denotes the 'object'. This is usually in the accusative case. However, there are various conditions under which this case can occur in a sentence as per the mappings. In the case of more than one word satisfying the query, the chances of having two or more objects (as in 'Rāma sent Rāvaṇa to the other world', 'Rāvāṇa was taken to heaven by Rāma', 'Vāmana begs earth (from) Bālī' etc.) or the qualifier/adjective relation has to be checked by query repetition/splitting. In case of two objects, the verbal root employed should belong to the class of verbs commanding two objects (ditransitive).

When the question 'by', 'with' or 'through-which' is put, the word answering this (usually in instrumental case) is fixed as the instrument or cause etc. When more than one word meets the query, the likelihood of having a main and auxiliary instrument (or cause) etc. or the qualifier/adjective relation is to be examined as before. For example, 'Rāma killed Vālī with an arrow', 'by which (or whose) light/heat the Sun shines' etc.

Putting the question 'to whom', 'what', 'which' or 'what for', the word satisfying the query is fixed as the recipient or

beneficiary. It may also be the purpose of the activity. This usually occurs in the dative case. If more than one word fills the slot, then the cases of more than one recipient or purpose (e.g., 'indulge in this for prosperity and eternity', 'do good deeds for the sake of duty and well-being' etc.) or the qualifier/adjective relation are to be exhausted.

To the query 'from where or what' with respect to time or space, the words answering (usually in the ablative case) are determined to be the references for separation etc. Things like comparison, reason, source, origin etc., are also covered. When more than one word satisfy the query, the chances of combined reference or qualifier/adjective relation has to be checked and decided. For example 'Sītā brushed aside Rāma due to attachment and regard', 'the sparks fly off from the well-lit fire' etc.

When the question as to the location is raised by 'where or when', the answering word is the functional relation of location either in space or time terms. Usually this appears in the locative case. Again, subject/topic, picking the best from a group etc., also take this case. When more than one word meets the query, the possibility of both space and time being given or two different locations/times or the qualifier/adjective relation are to be checked for. For example, 'the cuckoo coos in the garden in the evening in spring time', 'he is neither at home nor in the office', 'I didn't come in the morning and evening', 'Rāma is good in archery and justice' etc.

Further, we have to deal with 'non-functional relations', like qualifiers/adjectives of functors, substantives, prepositions, indeclinables, fillers etc. Words occurring in the sixth case-ending denote such generic residual (non-functor) relationships, ownership, superiority etc. Here also many words could denote the same/different relationships, be qualifiers/adjectives etc.

We have not yet addressed the problem of combination (सन्धि) and compounding (समास) of words. Issues regarding the accents of characters as used in the Vedic context are also to be dealt with. This would have phonetics, etymology, prosody,

astronomy and ritual directory information as well. Then, other text forms like continuous prose, poetry (involving metrics/ prosody) and a combination of these, *sūtras* (aphorisms) where hierarchies, chaining, meta rules, nesting etc., are also to be considered.

Functional Relations

'Functional relationships' (case-suffixes) are the factors that connect a noun (stem) meaning with that of the verbal activity, when in a sentence. These are also termed 'case-relations', which impart additional features (qualification) to the nominal meaning. Thus, a complete (declined or inflected or composite) word (i.e, with the stem and suffix) always denotes a 'qualified' thing, e.g. an entity. The 'qualification' could be :

nominative case: an instance of a concept, class, gender, magnitude, number or agency relation

accusative case: object-ness, goal etc.

instrumental case: agency, auxiliary cause, accessory etc.

dative case: recipient/beneficiary, purpose, aim etc.

ablative case: reference point during separation, cause, source or origin etc.

locative case: locus or substrate, topic, proximity etc.

Besides these, genitive case denotes possessive and other generic (usually inter-entity) relationships and vocative case corresponds to the relation of being addressed.

Pāṇini's Kāraka Theory

By observation of the language Sanskrit used by native speakers of his times, particularly the educated class, Pāṇini arrived at certain definite semantic features inherent in the inflections, the nominal bases undertook. These are wide categories by default, while many related shades of subtle difference in senses are described under each of these categories. The cases could denote certain default case relations as well as certain

specific semantic features or sub-functional categories. Thus, there could be certain specific relation marker for the cases as will be explained. Figure-2 gives the mapping of the *kārakas* to the sub-*kārakas*.

These case relations could be assigned active functions in sentences involving verbal activities. In descriptive sentences these relations may have a diluted sense. To unambiguously describe the generative syntax of the language for any particular sense to be conveyed, syntactic case markers were identified with a well defined relation to semantics. Intentionality is another factor in ascribing active roles to the functors. Six basic categories or case relations were propounded with their syntactic markers as below.

1. An 'independent thing' signifying existence of a substance, its gender, quantity or number with no special marker other than just a noun. When an active role is intended, an animate category of functor is usually used for example, 'Rāma kills Rāvāṇa by arrows', 'The enemy is getting killed by Rāma', 'I worship Rāma', 'Rāma blesses the devotee' as against an inanimate thing like 'the automobile goes', 'cancer kills'.

The independence in active mode could be exercised to cause an action directly or through another active or passive agent for example, 'Daśaratha sends Rāma to the forest', 'Rāma goes to the forest', 'Rāma gets the feast cooked by the cooks'. Volition or absence of it in an independent being would also lead to a different active role, for example, 'the youth died suddenly ', 'he shook out of cold'. Certain reflexive actions do not involve using the independence present in the actor for example, 'The food is being cooked by Rāma himself', 'the wood breaks by itself'. Here the utmost ease with which an activity is accomplished makes the choice of reflexive formation marked by "... self'. Swatting mosquitoes while asleep is typically the example for reflexive action literally, though.

2. An 'item most desired to be reached immediately by the action of the agent' is the second case relation. This could as well cover a most undesired one. A combination of these is also

possible. This includes producing, modifying, or attaining the object of desire or otherwise. Here also no special markers are used. A few examples are:

(i) 'The weaver weaves the cloth' (producing).
(ii) 'The goldsmith embeds diamond in Rāma's earring' (refining).
(iii) 'I pray Rāma' (attaining - mental).
(iv) 'Out of lust Rāvāṇa steals Sītā' (undesirable).
(v) 'Angered, he consumes poison' (undesirable).
(vi) 'The hungry child eats polluted food unknowingly' (desired and undesired).
(vii) 'The cow is milked by Kṛṣna' (passive).

Since these two cases and the relations are not specific to any particular situation, for any active sentence these are required essentially. Intransitive actions do not take object.

3. The 'most effective means' for accomplishing the verbal activity is the third functional relation. This corresponds to the syntactic marker denoting instrumentality like 'by, with, because of, due to', etc. Reason or cause gets included under the means. The means could be internal (bodily organs etc.) or external. The agent gets this marker in passive sentences.

For example,

(i) 'Rāma cuts off Rāvāṇa's head 'by' sharp arrows' (external).
(ii) 'Rāma reaches Ayodhya 'by' palanquin 'with' Sītā' (external).
(iii) 'I 'mentally' pray Rāma' (internal).
(iv) 'Lakṣmaṇa signals Rāma 'by' his eyes' (internal).

4. The next functional relation is that of 'the item one has in view through the object (or activity)'. This corresponds to the syntactic marker 'to, for, for the sake of', etc. The recipient in an act of giving or the beneficiary (consentor, non-refuser), the person pleased in activities relating to taste etc, the target of praise, curse, envy, anger, etc., the creditor, object intended, person being

inquired about, the prompter in case of promise and sacrificial recitation etc., get these markers.

For example,

(i) 'Give (*to*) me salvation, O! Lord' (request).
(ii) 'Rāma grants release 'to' his devotee' (prompted).
(iii) 'The hermit brings fruit 'for' Rāma' (consented).
(iv) 'The devotees offer prayer 'to' God' (non-refused).

5. The next relation is one of the 'reference while separation'. This could be static or mobile, while the separation could be physical or mental. This also covers the cause of fear, the intolerable one, the one intended to be warded off, the source or origin, picking one from a lot, etc. 'from, among, out of' This case-relation corresponds to the syntactic marker from, among, out of etc., in general.

For example,

(i) 'The leaves fall 'from' the tree'. (fixed reference)
(ii) 'The Warrior falls 'from' a running horse'. (mobile reference)
(iii) 'The goats retreat 'from' each other'. (relative reference)
(iv) 'He looks 'from' the balcony'. (transcendental separation)
(v) 'The army fears (*from*) snake'. (cause of fear)
(vi) 'The king protects his subjects 'from' theft'. (protection)
(vii) 'The students dreads (*from*) studies'. (intolerable)
(viii) 'Kautsa learnt 'from' Varatantu'. (systematic learning)
(ix) 'Kṛṣna hides 'from' his mother'. (hiding)
(x) 'Arjuna is the best 'among' the archers'. (picking)
(xi) 'Ganges flows 'from' Himalayas'. (origin)
(xii) 'Living beings emerge 'from' God'. (source)

6. The lest functional relation is the 'locus' of the activity. This could be time, space, topic, proximity etc., and further be pervasive or partial. This corresponds to the semantic marker 'in, at, on' etc.

The exāmples are :

(i) 'Oil is 'in' the seeds', 'there is light in the day' (pervasive - space/time).

(ii) 'Rāma sits 'on' the throne', 'the teacher taught 'for' thirty years' (partial contact).

(iii) 'He is good 'in' mathematics', 'the climate is fine 'in' spring' (topical).

(iv) 'The hamlet is 'on' the river', 'I reside 'in' M.G. Road', 'I am just joining you' (proximity' - space/time).

These six are the functional relations of which, the last four are optional in a given construction (with a few exceptions). Further the sixth case is not considered a functional relation as it has no direct connection in terms of expectancies to create a total sense out of the sentences. These words describe certain additional features of the different functors. The mandatory *kārakas* (agent and object) may be denoted under certain conditions and certain peculiar speaker intention based usages ('of whom when enraged even the deities fear in the warfield' is a typical usage in the *Rāmāyaṇa* where fifth case ought to have been used instead of the sixth) are the only instances where functional relations could be denoted.

Work done so far

Thus, an effort is made to computationally study sentences and arrive at the intended semantics in *DEŚIKA*, in a preliminary way. Vedic analysis using Yāska's *Nirukta* and *Nighaṇṭu*, besides various *Śikṣā-s* and *Prātiśākhya-s* are employed for word-split, accental semantic determination etc. The entire *Ṛgveda Saṃhitā* with *pada-pāṭha* has been rendered on the computer with accents and word-index and search/retrieval facility built.

The knowledge-base of *Vyākaraṇa Śāstra* comprising Pāṇini's *Aṣṭādhyāyī*, *gaṇapāṭha*, *dhātupāṭha*, *śikṣā* and *liṅgānuśāsana* including *anuvṛtti*, *adhikāra* etc., for explanation of the *sūtra-s* has also been built.

PĀṆINI AND COMPUTER

K. Maheswaran Nair

The historic event that led to relate Pāṇini and computer was the realisation of the worth of Pāṇinian grammar on the part of adherents of transformational grammar. Pāṇinian grammar is now widely acclaimed as the most computer-friendly one. Computational utilities of Pāṇinian grammar are yet to be fully assessed by the computational linguists as well as the computer scientists. What is intended in the present paper is to give a brief account of the work already done in the field. The paper addresses Sanskritists in the main.

Computational Linguistics

Pāṇini framed his grammar for the Sanskrit language. Computer needs computable language for various applications like Natural Language Processing (NLP). The building of natural language systems has become a major task of computer engineering. And in this, grammar plays the key role. Theoretical linguistics, in this context, grows into computational linguistics which is the study of computer systems for understanding and generating natural language. Machine translation (M.T.), Information retrieval and Man-machine interfaces are the three central applications of computational linguistics. One important function of computational linguistics is the testing of grammars proposed by theoretical linguists. Pāṇini might not have even dreamt of a computer testing his grammatical rules; but it is now possible. Computer testing of grammar rules is not the main concern of computational linguistics today. New areas of research like Procedural models of the psychological processes of

language understanding and representation of knowledge have emerged.

Computers were originally optimised for numerical operations. The same computers were used for character and string manipulation types of operations. Researches in the area of knowledge representation have now gone a long way in structuring information by developing frames, scripts, information formats etc. within the computer in the place of devices of numerical operations. As a result, the linguist or grammarian cannot be now satisfied with his focus on the single aspect of language performance or grammatical competence whereby some sentences are judged as grammatical and some others as ungrammatical. Questions of grammaticality and ungrammaticality are, no doubt, important. But, what is more important is the universal applicability of grammatical principles. The simplest and most computational grammar applicable to all natural languages is the prime requirement of the day. Algorithmic vulnerability is the test of such grammar and not scholastic rigidity.

Transformational Grammar

It was Z. Harris (1957) who introduced the notion of linguistic transformation. He used it in the context of relating pairs of sentences which have common constituents.

Example:

Mary ate the muffin.

The muffin was eaten by Mary.

It is by passive transformation that the two sentences are related. The possibility of transformation does not exhaust by this. The same sentence 'Mary ate the muffin' can be related to 'It was Mary who ate the muffin' by cleft transformation and to 'Did Mary eat the muffin ?' by question transformation.

Harris pointed out the paraphrastic nature of the transformations. The pairs of sentences related are paraphrases of one another. What is important is the fact that the same information

is conveyed, though with different emphasis. This suggests the practical value which transformation can offer. In computational linguistics, this is of utmost importance. Parsing of a sentence is not enough, the meaning of it has to be figured out. When many different constructions can be used for expressing a particular meaning, the task of singling out meaning becomes complicated. On such occasions paraphrastic transformations can be used so as to reduce the multiplicity of constructions. This potential value of transformations found application in computational linguistics. Harris himself pointed out the use of transformations in information retrieval (1958).

The notion of transformational grammar was further developed by Noam Chomsky who was originally a student of Harris. Chomsky's two important works are *Syntactical Structures* (1957) and *Aspects of the Theory of Syntax* (1965). Chomsky's grammar known as the 'transformational generative grammar' has been revolutionary in many respects. Many aspects of Chomsky's theory have changed over the years. One interesting fact is that Chomsky's theory is not limited by a definition. His theory also relies on the phrase structure of sentence. But his transformations operate on phrase-structure trees rather than on sentence strings.

Chomsky's transformational grammar consists of a base component and a transformational component. The base component is a context free grammar that produces a set of deep structure trees. The transformational component is a set of tree-rewriting rules which can be applied to a deep structure tree so as to produce one or more surface structure trees. Chomskian transformations are divided into singulary and binary and also optional and obligatory.

Chomsky did initiate a school of linguists, which contributed much to the development of computational grammar. The progress in the field during the lest four decades, has been surprising. It is not within the scope of this paper to present even a bird's eye view of the same. One thing has to be stated here. Chomsky and many others realised the magnificent nature of Pāṇinian grammar

and they did incorporate some of his approaches in their own work.

Mr. Rickbrings, a scientist of NASA, U.S.A. tried a number of languages for a semantic network scheme of knowledge representation in Artificial Intelligence and at lest found that Sanskrit is the best suited for the same since the 'Vaiyākaraṇaśābdabodha' has striking similarity with his scheme. Since then many efforts have been done in the field of Sanskrit and computer in various parts of the world.

Works in India

In India also many projects are ensuing for the computational utilisation of Pāṇinian grammar. The Department of Computer Science and Engineering of the I.I.T., Kanpur has been engaged from 1983 in utilising Pāṇinian grammar, especially his Kāraka theory for an interlingua based translation system among pairs of Indian languages. Work under the U.N.D.P. assisted Knowledge Based Computer Systems (K.B.C.S) project began at C-DAC, Pune in 1989, to render Pāṇini's grammar computationally. Sanskrit institutions at Benares, New Delhi, Tirupati, Haridwar and Melkote (Karnataka) have also been working on various projects related to Pāṇini and Computer. Many other private as well as public organizations are also seriously engaged in research in the field. Apart from data entry and word processing applications, the efforts concentrate on Natural Language Processing. The Graphic and Intelligence based Script Technology (GIST) developed by the C-DAC has made transliteration between Indian scripts, including Devanagari possible. The various softwares like ALP, ISM, and LEAP developed by the C-DAC are now widely used in India and abroad. The C-DAC is also engaged in developing function libraries, rule bases and data bases for Sanskrit under the DESIKA project. Operations based on Pāṇini's Aṣṭādhyāyī have produced very good results.

Natural Language Processing

NLP is a much more advanced area. The primary function of natural language is communication. NLP concentrates on the study of language as a means of communication. The speaker or writer wants to convey some information to the hearer or reader. He codes it in a language. Utterance or the written document is the only thing received by the hearer or reader. He must extract the information from the text by decoding it. This coding and decoding mechanism is very important from the computational standpoint. Various phenomena of language will be analysed in this connection. Word order and case endings are alternative ways of coding and decoding information in language. It all works smoothly at the simple syntactic level since there is no point of conflict. But when it comes to the use of the same device in language for coding and decoding of different kinds of information, problems arise. These problems, though related to syntax, are mainly semantic and pragmatic.

The initial success attained in machine translation has prompted further research and studies. Three types of machine translation can be identified. The first type is for translation between a pair of languages. The second is the type based on the concept of interlingua. The third is based on the transfer approach. The interlingua approach is preferable for multilingual translation involving various types of languages.

India has many active groups working in MT. The Akshar Bharati group based at IIT, Kanpur, has applied Pāṇini's grammar to modern Indian languages and has succeeded in it to a large extent. It has given a boost to traditional Pāṇinian Vyākaraṇa studies, linguistics and AI disciplines. The book entitled *Natural Language Processing— a Pāṇinian Perspective* which incorporates the results of the Akshar Bharati project is a valuable document of the progress of their research. Another contribution is the Anusāraka system. The Anusāraka translation system developed by IIT, Kanpur is capable of making rough translations between Indian languages.

Studies relating Pāṇini's grammar and computer have created a feeling, especially among laymen that Sanskrit is the most suited computer language. There is an element of truth in it. Sanskrit has been identified as the most suitable interlingua for M.T. But the Sanskrit language, as such, cannot be used as a computer language as is sometimes given to understand.

The old dictum that Sanskrit is the language of Gods pronounced bv Maharṣis *(saṃskṛtaṃ nāma daivī vāganvākhyātā maharṣibhiḥ)* has been given new interpretation in the light of these new developments. But there is no point in making idealistic claims. In fact, the computer-suitability of Sanskrit lies in its artificiality. It is verily said in the *Amarakośa— saṃskṛtaṃ kṛtrime lakṣaṇopete*. It may be noted that the interlingua needed for computer need not be a natural language. It may also be noted that transformational grammarians hold Pāṇini's grammar in high esteem. The syntactic or structural part of language is the most stressed by transformational grammarians. Pāṇinian grammar also is highly syntactic.

It is true that syntax, semantics and pragmatics are not isolated branches of learning. All the three are integral parts of a sign system especially the system of language. Syntax or better, syntactics studies the structure of the sign system independent of the function it performs in the system. Semantics studies the means of expressing meaning. Pragmatics studies the relation of the system with those who use it. All the three, Syntactics, Semantics and Pragmatics constitute the broader science of Semiotics which engages in the study of sign systems at large. Semiotics and computer science work in close contact, the results of which have only begun to come out.

Conclusion

Pāṇini and computer have so far shown complimentary influences. Computerisation has reduced the difficulties of Pāṇinian grammatical studies. Parsing has now become easier using computer software. The entire grammatical literature of Sanskrit

can be carried in a small disk now. Application of Pāṇini's rules in the field of computational linguistics and computer has also produced good results. Possibility of developing Sanskrit into a universal interlingua for machine translation is very high. But still a lot of work has to be done for achieving more and more results.

Bibliography

Akshar Bharati et.al, *Natural Language Processing— a Pāṇinian Perspective*, New Delhi : 1996.

Chomsky, Noam, *Syntactic Structures*, The Hague : 1957.

—*Aspects of the Theory of Syntax*, Cambridge : 1965.

Dash, Dr. KC., ed., *Sanskrit and Computer*, Delhi : 1995.

Davidson, Donald and Harman, Gilbert, ed., *Semantics of Natural Language*, Dordreht : 1972.

Grishman, Ralph, *Computational Linguistics— An Introduction*, Cambridge : 1994.

Jerry A. Fodor and Jerrold J. Katz, *The Structure of Language*, New Jersey : 1964.

OBJECTS, RELATIONS AND KĀRAKAS

V.N. Jha

The Bhāṭṭa school of Pūrvamīmāṁsā accepts that *jñāna* (cognition) is beyond the reach of a sense-organ. There cannot be even a mental perception of it. It can be only inferred. They hold such a view in order to avoid entrance of idealism which the Buddhist logicians were imposing upon them. The Bhāṭṭas thought that if a cognition is accepted as an object of mental perception, The Buddhists will force them to accept that the world outside is a mental projection and hence unreal. In order to avoid such a consequence, they forwarded a view that the cognition is not perceptible. They said that cognition or *jñāna* is the root-meaning of (√) *jña* and it is *kriyā* which is imperceptible. That s root-meaning is *kriyā* and is not perceptible seems to have been borrowed from Patañjali, the author of the *Vyākaraṇa-Mahābhāṣya*. Patañjali says:—

kriyā nāma atyantāparidṛṣṭā na śakyate piṇḍībhūtā pradarśayitum

Thus, the meaning of the root *pac* in the sentence *caitraḥ pacati* 'Caitra cooks' is a series of activities which is beyond the sense-organ at one time. Taking the clue from here, the Bhaṭṭas gave a theory that the meaning of the root *jñā* is a *kriyā* and hence it is not perceptible. It can only be inferred on the basis of its result.

The Logicians (Naiyāyikas) have contested this theory. It is in the context that we come across a lively discussion on the nature of a *kāraka* which I want to summarise in this paper before I demonstrate the implications of the dialogue between the Bhāṭṭas and the Naiyāyikas. This dialogue occurs in the first *āhnika* of the *Nyāyamañjarī* of Jayantabhaṭṭa.

1. The Dialogue

The Bhāṭṭas initiate the discussion and the Naiyāyikas raise objection as follows:

atha kāraka-nirvartyā kriyā sāpi idānīm kāryatvāt savyāpārakāraka-kāryā bhaved iti anavasthā, niṣkriya-kāraka-kāryatvetu kriyām iva phalam api niṣkriyāṇi eva kārakāṇi kuryuḥ iti kim kriyayā?

It means if *kriyā* is to be brought into existence, it has to be done by active participation of the *kārakas* involved in it. This implies that to produce this *kriyā* the *kārakas* will have to be involved with another *kriyā*, which will also require another *kriyā*, and in this way it will lead to *anavasthā*. To avoid this if the Bhāṭṭas say that without being involved the *kārakas* will produce *kriyā* then let them directly produce result what is the need of producing *kriyā* and through that producing the result?

The Bhāṭṭas then turn to the basic question: What is a *kāraka*? They suggest to have a look at the very derivation of the word *kāraka*. They point out:

nanu karotīti kārakam. kriyāveśam antareṇa ca kārakatvānupapattiḥ.

This clarification clearly implies the definition of a *kāraka* as *kriyānvayi kārakam.* An entity is a *kāraka* if it is involved in an activity.

The Naiyāyikas agree with the derivation suggested above, but point out the fact that the derivation needs to be understood properly. Jayanta says—

satyam karoti iti kārakam, tat tu phalam eva karoti natu kriyām.

Karoti is taken to mean 'produces' but what is produced? According to the logicians, the *kārakas* produce result and not *kriyā*.

The Bhāṭṭas are alert and immediately say :

nanu karoti iti yad brūṣe seyam uktaiva kriyā bhavati. caitraḥ kaṭam karoti iti caitrasya iva, kaṭasya iva karotyarthasya apratyākheyatvāt. tat-kṛtam eva caitrādīnām kārakatvam.

The Bhāṭṭas point their finger to the paraphrase *karoti* which involves *kriyā*. They want to know what the meaning of the form *karoti* is in the paraphrase of *karoti*.

The Naiyāyikas say :

yat tu karotyarthasya apratyākhyeyatvāt ity uktam tatrocyate

parispanda eva bhautiko vyāpāraḥ karotyarthaḥ. na hi vayam parispandātmakam paridṛṣyamānam vyāpāram apahnumahe, pratikārakam vicitrasya jvalanādeḥ vyāpārasya pratyakṣam upalambhāt, atīndriyas tu vyāpāro nāsti iti brūmahe.

It is not the case that the form *karoti* is without a referent, says Jayanta. What he objects is the fact that a *kriyā* should not be called *atīndriya*. If what the Bhāṭṭas say is accepted then one cannot know the nature of a *kāraka* because *atīndriya kriyānvayi kārakam* will be its notion and in that case one can never know it and if one does not know it how can one go to collect it? In Jayanta's words :

na atīndriya-kriya-yoga-nibandhanaḥ kārakabhāvaḥ, kriyāyāḥ atīndriyatvena tad-yoga-kṛta- kārakatvānadhigame vyavahāra-vipralopa-prasaṅgāt. kriyāveśakṛtam hi tat-kārakatvam anavagacchantaḥ katham phalārthinaḥ tad-upādadīran.

The Naiyāyikas open their heart and provide a definition of a *kāraka* as follows:

kārakatvam svarūpasya sahakāryādi-sannidhiḥ

'It is a factor accompanied by the proximity of auxiliary factors'.

After ascertaining this situation one goes to collect the *kārakas* for getting a result. On this Bhāṭṭas say the following :

nanu pāko nāma dhātvarthaḥ paridṛśyamāna-jvalanādi-vyāpāra-vyatiriktaḥ eṣītavya eva, tam antareṇa phalaniṣpatteḥ abhāvāt. asati ca tasmin kim adhikṛtya kārakāṃ saṁsṛjyeran?

It is clear from this that the Bhāṭṭas do not consider individual action to be the root-meaning, rather it should be a series of actions and only when we accept it we can explain satisfactorily how the *kārakas* come together to produce an effective action to produce a result.

The logicians find it difficult to understand. They put several questions on this occasion:

yam tam ekam dhātvartham sādhyam budhyase sa kim samudita-sakala-kāraka-sampādyaḥ? ekaika-kāraka-nirvartyo vā?

If the first alternative is accepted, it will imply that each *kāraka* individually is without *kriyā* and when each one individually is without *kriyā*, how can they acquire *kriyā* in a collection? And if the second alternative is accepted, it will imply that each *kāraka* individually will produce result and in that case the other *kārakas* will become redundant which is against facts.

Therefore,

na tathāvidha-dhātvartha-puras-saraḥ kārakāṇām saṁsargaḥ

The logicians redicule by saying that if such a theory is accepted, the sticks should not burn unless the cooking vessel is put over it.

tathā sati na kāṣṭhāni jvaleyuḥ pitharād vinā

The Bhāṭṭas retort by saying

nanu pitharād vinā khāṣṭhāni jvalanti na tu pacanti

This says that when the fuel is burning without the pot over it, it cannot be said that it is 'cooking'. To this logician replies:

maivam, satyapi piṭhare jvalanty eva kāṣṭhāni, nānyat kurvanti dṛśyante. tasmāt kriyāntarābhāvāt phalam eva urarīkṛtya kārakāṇi saṃsṛjyante.

The logicians, thus, want to hold that it is the result that prompts the *kārakas* to come together for producing it, and not the root-meaning.

Then what is the root-meaning?—ask the Bhāṭṭas.

nanu pākaḥ idānīm kaḥ? na pacer vācyaśūnyatā eva yuktā.

The logicians reply :

samudita- devadattādi-sakala-kāraka-nikara-parispandaḥ eva viśiṣṭa-phalāvacchinnaḥ pākaḥ ityucyati. sa eva hi paceḥ arthaḥ. tā eva kāṣṭha-piṭharādi-kriyā jvalana-bharaṇādi-svabhāvāḥ pṛthak-tayā vyavasthitāḥ tathātvenaiva avabhāsante. samuditāḥ tu satyaḥ phalāntarāvacchedāt rūpāntareṇa pākādinā parisphuranti. vyapadiśyante ca.

tathā ca devadattaḥ pacati itivat kāsṭhāni pacanti, sthālī pacati iti vyapadeśo dṛśyate devadattasyāpi darvīvighattanādir eva paridṛśyamānaḥ tatra vyāpāraḥ, na tato'nyaḥ sūkṣmaḥ.

This answer of the logicians reveal their mind vividly. Every individual factor in a causal complex performs a particular role to bring about the desired result. To explain the result it is not necessary to postulate and invisible activity over and above the visible activity . The examples like *kāṣṭhāni pacanti* are testimony to the fact that the action of an individual factor can also be viewed as the root-meaning.

This dialogue finally lead to another clarification. Unless a factor is involved in an activity it is merely a *vastu* or thing and it cannot be said to have acquired the status of a *kāraka*. Jayanta says :

kriyāviśeṣa-vaśāt kārakam kārakam bhavati, aparathā hi tat vastu-svarūpamātram eva syāt, na kārakam.

2.0. Implications

The picture that emerges from the above dialogue can be presented as follows:

(a) There is the world around us.

(b) It may be associated with an activity

(c) The activity will bring about a transformation and thing or a factor will be called a *kāraka*.

This analysis gives rise to postulation of the following:

kāraka

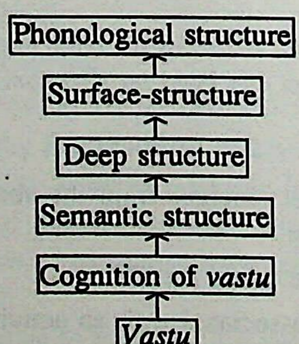
vastu

When a *vastu* 'an entity' is involved in an activity it is transformed into a *kāraka*.

Kāraka is a role which the entity performs in order to generate the result (*phala*).

When the speaker wants to communicate this fact, the process of verbalisation begins. The level of *kāraka* will be called the semantic level and a label will be attached to each element as per the role performed by that element. Thus we find the Pāṇinian head-rule (*adhikāra-sūtra*) *kārake*. The rules like *kartur īpSītātamam karma, sādhaktamam karaṇam* and the like assign labels like *karman* and *karaṇa* to an entity considering the role they performs in the process of producing the result.

In order to manifest this role the indicators are added in the form of case-suffixes (*kāraka-vibhakti*). These indicators also reflect the relationships of each element to the activity associated with them and also among the elements through that activity. This level is further transformed into expressible form with all phonological and morphophonemic changes. What I want to say can be presented in the following diagram:



What is *vastu* becomes a *viṣaya* when it is congnized.

What is *viṣaya* becomes a *kāraka* when it is congnized as being involved in an activity. This constitutes the semantic structure. When the role is defined it is the deep structure and when the role-indicators are specified it represents the surface structure and when the surface structure is transformed into usable form it gets the phonological structure.

From this point of view Pāṇinian grammar can be rightly called a generative grammar. Let us illustrate the point with an example:

To get the form *akṣaiḥ / akṣān* in the sentence *caitraḥ akṣaiḥ/ akṣān dīvyati*, Pāṇini will take us through the following steps:

Step I: *kārake*

Step II : *sādhakatamam karaṇam*

Step III : *kartṛ-karaṇayoḥ tritīyā*

Step IV : upto *sasajuṣoḥ ruḥ*

Step V : *akṣaiḥ* (usable form).

Similarly, after reaching step II, an optional label is put to *akṣa* by *divaḥ karma ca* and then through the morphophonemic changes we reach another usable form *akṣān*.

Pāṇinian grammar comes closer to the notion of a generative grammar.

Bibliography

1. Jha, V.N.
'*Vastu, Viṣaya* and *kāraka*' in *Studies in Indology*. R.V. Joshi Felicitation Volume, New Delhi.
2. Staal, Frits, 'Syntactic and Semantic Relations in Pāṇini' *Universals*.

LOGICAL STRUCTURE OF KĀRAKA

V R. PRABODHACHANDRAN NAYAR

THE CONCEPT that Semantics and Phonetics constitute two peripheral sub-systems of language was, fortunately, prevalent during a very short period in the history of Structural Linguistics in the western side of the Atlantic. In the eastern side it was always held that all linguistic analysis is a step-by-step progress from sound to sense involving a series of contextualizations.

Physical sciences did not care to formulate in advance, sophisticated definitions of phenomena like light, matter and electricity before powerful theories concerning the qualities of those phenomena were put forward. It is therefore no wonder that linguists keep the term 'meaning' undefined, although they employ it quite often.

Utterances are possible only in given situations. Meaning of any utterance is, nothing other than the function it fulfils. Every conceivable situation is to be analyzed in terms of what is relevant to the function of utterances. The question cropping up, therefore, will be 'why should an utterance fulfil any given function in a specified situation ?'

A general theory of situation demands an omniscience with which the human being is, unfortunately, not endowed. And what is function? Is it the intention or the reaction of the speaker and listener respectively or is it the sum total of the speaker's intention and the listener's reaction? To what extent can the speaker have control over the meaning of his / her utterance ? How to avoid misunderstandings?

Pirandello, the famous Italian dRāmatist stated that :

'*I* put into words I speak the meaning and the value of the things inside *me*, but whoever hears them interprets them with the meaning and value of *his* interior world. We imagine we understand each other, we never understand!'

Malayālis will, naturally remember, in this connection, the famous quartrain of Kumāran Āśān which laments over the unfortunate inability of the human being to reveal one's inner self fully to another and also over the incompleteness of language in this respect and the consequent possibility of mutual misunderstanding.

Although semantic relations between utterances cannot be strictly logical, linguists are fond of recognizing at least quasi-logical semantic relations between utterances. The following are some of such relations often referred to:

1. *Synonymy or Paraphrase*

E.g. (a) Too many laws are inconvenient.
(b) A multiplicity of legislation is an encumbrance.
(a) is a paraphrase of (b).

2. *Inconsistency*

E.g. (a) Jayan is a bachelor.
(b) Jayan's wife cooks well.
(a) is inconsistent with (b).

3. *Contradiction*

E.g. One hundred lines in the original have been summarized here in five hundred lines.

4. *Tautology*

E.g. Mathew is blind and visually handicapped.

5. *Entailment*

E.g. (a) Professor Varghese is no more.
(b) Professor Varghese will not attend the function.
(b) entails (a).

6. *Presupposition*

E.g. (a) Hari's message was brought by his son.
(b) Hari has a son.
(a) presupposes (b).

Charles J. Fillmore's paper 'The case for case' in *Universals in Linguistic Theory* in Bach and Harms (1968) stands apart from all other proposals for the design of generative semantics. Fillmore brought to focus three important points :

(1) the order of elements in deep structure-strings
(2) recognition of different (essentially semantic) functional relations between deep structure elements, and
(3) the definition of 'subject', 'object' and similar other notions.

According to Fillmore, 'The case notions comprise a set of universal, presumably innate concepts which identify certain types of judgements human beings are capable of making about the events that are going on around them, judgements about such matters as who did it, who it happened to, and what got changed.'

Case relations identifiable are illustrated below:

Name of Case	Definition	Example (Case is italicized)
Agentive (A)	Instigation of action Must be + animate	*John* opened the door.
Instrumental (I)	The animate force involved in the event as stated or named by the verb.	The *key* opened the door. John opened the door with a *key*.
Dative (D)	Indicates animates being affected by events named by the verb.	John gave the book to *Mary*.

Factive (F)	The object or being resulting from the action indicated by the verb.	John built a *house*.
Locative (L)	Location as specified by the verb.	The book is on the *table*. *Delhi* is warm. Joseph ran to the *building*.
Objective (O)	The most neutral semantic case: the case of anything represented by a noun whose role in the action or state identified by the verb depends on the meaning of the verb itself.	John sees *Mary*. John opened the *door*. The door was opened by *John (A)*.
Benefactive (B)	For whose benefit the action is intended.	Ravivarma painted the portrait for *the King*.
Time (T)	Time of the action.	India got independence in 1947.

Thus for example, note the different roles of what is usually termed just 'subject' :

Gopi picked up the stone	----	Actor upon something else
Gopi broke the glass	----	Causer of the action
The stone broke the glass	----	Instrument
The glass broke	----	Actor alone
Gopi was arrested	----	Patient
Gopi was given a jail sentence	----	Recipient

Similarly what is commonly referred to as 'object' is also a catch-all box : The question as to what is meant by 'possessor' also may be thought of in this connection. See the following instances:

Gopi painted a picture	----	The picture comes into being as a result of Gopi's action.
Gopi cleaned the picture	----	The picture undergoes a process.
Gopi moved the picture	----	The picture is caused to shift its place.
Gopi's picture was much appreciated	----	This is triply ambiguous, meaning (a) The picture depicts Gopi, (b) The picture belongs to Gopi, and (c) The picture was painted by Gopi.

Fillmore pointed out the possibility of classifying verbs and nouns on the basis of case frames set up as follows :

[open O (I) (A)]   *John opened the door* with *the key.*
A O I

O referring to Objective is obligatory for a verb like 'open' whereas I and A referring respectively to Instrumental and Agentive are, both optional. Thus the following possibilities are accounted for:

The door opened.	(open O)
John opened the door.	(open A O)
The key opened the door.	(open IO)
John opened the door with the key.	(open AOI)

(run, walk, come A) *John* runs. *She* walked. *They* come.
A A A

A and D relations are relevant to animate nouns only. (+ animate) nouns only will be selected by context-sensitive rules.

Most of the relations Fillmore speaks about are taken care of in the traditional Indian grammatical treatises within the framework of the concept of what is known as *kāraka*.

kāraka is the relation between Noun and Verb. *Kārakas* constitute all the factors that generate the verb in question.

Whatever elements fulfil the expectancy (*ākāmkṣā*) of a verb go into the constitution of its *kāraka*.

Meaning of any verb can be bifurcated into action and result (*vyāpāra* and *phala*). Such a division will help specifying subject and object.

Kartā is the most predominant among the *kārakas*. He is the basis of action. When the action and result are attached to two different nouns, the basis of the result is the object or the *karmakāraka*. Verbs of which the action and result are attached to one and the same noun are objectless or intransitive. The Malayālam verb *naṭa* 'to go', for example, has the action and the result (movement and reaching another place, respectively) attached to the same noun (*samānādhikaraṇa*); it is, therefore, intransitive. In 'He smashed (*aṭiccu*) the boy with a stick' the action (hitting the boy's body with the stick) and the result (suddenly experienced pressure and pain) are attached to two different nouns. Here the boy becomes the object and the stick the instrument. The objective (accusative) case is called *pratigrāhika* in Malayalam grammar. (< *pratigrahi-* 'to receive') since the object is the receiver of the result of action.

Sākṣi is the opponent (*pratiyogī*) or addressee or assistant or collaborator of the actor in the action. Thus in *avanoṭu parañju* 'Told him', 'he' (*avan*) is necessary to fulfil the expectancy of the verb and is its *sākṣi*.

Svāmī is the intended beneficiary or experiencer of the result of action.

E.g. *acchan makanu paṇam koṭuttu*. 'Father gave money to the son'. 'Son' being the beneficiary is the *svāmi*.

avan gopiyuṭe talaykkaṭiccu. 'He hit on Gopi's head.' 'Head' is the experiencer of the pain of being hit and is the *svāmi*. The *uddeśya* of any statement involving *asamānādhikaraṇa* also will be *svāmi*.

E.g. *kākkaykku karuppunṭu.* '(The) crow has blackness : The crow is black.' Here the 'crow' is the *uddeśya* of *asamānādhikaraṇa* or *vyadhikaraṇa* and is therefore the *svāmī*.

A tool useful for the actor in executing the action is *karaṇa*, the logical reason for the action is *kāraṇa*. Both *karaṇa* and *kāraṇa* are the meaning of the case entitled *prayojikā*. In the so called passive voice involving the use of the verb *peṭ-* in Malayalam, it is held that the subject is in the *prayojikā* case; but in close examination it is revealed that even is such instances (*avanāl itu parayappettu* : 'Because of him it came to be in the process of speaking -- *parayalil pettu*) the sense of reason is quite clear.

Adhikaraṇakāraka refers to the basis of action, which can be of three types: *aupaśleṣika, abhivyāpaka* and *vaiṣayika*. In the first variety the basis and the based are in physical contact only in certain parts (e.g. a book on a table); in the second, one substance spreads over the whole body of another (e.g. sugar in milk); in the last one, relationship of the basis and the based is ascribed even to non-material objects (e.g. interest in literature).

Bibliography

Bach, E and Harms, R.T. 1968 *Universals in Linguistic Theory*, New York.

Simpson, J.M.Y. 1979 *A First Course in Linguistic*, Edinburgh.

Rajarajavarma, A.R. 1895 (Revised Ed. 1917) *Keralapāṇinīyam*, Trivandrum.

NUANCES OF VIVAKṢĀ AS DISCERNIBLE IN THE KĀRAKAS

K. S. KANNAN

TWO TEXTS, one attributed to Pāṇini himself, and the other by Bhartṛhari, very well bring out, the importance of *vivakṣā*, 'speaker's intention', in the function of speech and the function of grammar.

The first verse of Pāṇinīaśikṣā says:

आत्मा बुद्ध्या समेत्यार्थान् मनो युङ्क्ते विवक्षया

Bhartṛhari's *Vākyapadīya I.* 13 notes the role of *śabda* and the vital role of *vyākaraṇa* therein.

अर्थप्रवृत्तितत्त्वानां शब्दा एव निबन्धनम्।
तत्त्वावबोधः शब्दानां नास्ति व्याकरणादृते॥

Helārāja's commentary on this is significant:

अर्थप्रवृत्तितत्त्वं विवक्षा। न तु वस्तुतः स्वरूपेण सत्त्वम् असत्त्वं वा। विवक्षैव हि शब्दप्रयोगनिबन्धनम्।

2. The *kāraka* section of *Aṣṭādhyāyī* is the heart of the work of Pāṇini and this paper deals with the intention of the speaker as mappable into language via the *kārakas*, This should interest grammarians in general but is a matter of importance for linguists and computer scientists working in Natural Language Processing.

The peculiar nature and function of agency as evidenced in the following sentences, may be taken as a pointer to what follows.

Example 1 (E1) This road goes to Calicut.
(E2) This train goes to Calicut.
(E3) This letter goes to Calicut.

(E4) This traveller goes to Calicut.
(E5) The aeroplane goes faster than the train.

Expressions like these are not peculiar to English. Consider, for example, E6 अयं पन्था: स्रुघ्नं गच्छति।

3. That a given socio-cultural milieu allows certain kinds of expressions, disallowing certain others— the celebrated Sapir-Whorf Hypothesis— is not unknown to Indian grammarians, though they may not have had occasion to refer to a linguistic relativism, as their concern was but Sanskrit, which provided a paradigm for other languages, by and large. This was known as लौकिकी विवक्षा, which regulated the second type called प्रायोक्त्री विवक्षा, the sweet will of the speaker. As Charudeva Shastri notes, 'लोक' in 'लौकिक' means the circle of the elect लोकश्चात्र शिष्टलोक एवाभिप्रेत:। The function of grammar is to set this standard usage forth, says Bhartṛhari.

साधुत्वज्ञानविषया सैषा व्याकरणस्मृति:।

A subset of प्रायोक्त्री विवक्षा expresses itself through the case terminations, via *kārakas*. Language is a tool alike of report and imagination and hence ontological correctness is not demanded. If नहि यद्यत् वस्तुस्थित्या अस्ति तत्तत् अभिधातव्यम्। यदेव तु विवक्षितं तदेव स्वनिमित्तां विभक्तिं प्रसूते। -as Haradatta says.

4. In the stock example:

E7 देवदत्त: स्थाल्याम् ओदनं पचति काष्ठै:। the action itself is shown by पचति and the remaining words show the 'participants in-action', called *kārakas*. The role of each *kāraka* is set forth thus:

of अधिकरण ('स्थाल्याम्') - संभवनक्रिया and धारणक्रिया

of करण ('काष्ठै:') - ज्वलनक्रिया

of कर्तृ ('देवदत्त:') - अधिश्रयण उदकासेचन and तंडुलावपन etc.

5. It is विवक्षा again, that regulates whether the speaker wants to present something as a *kāraka* or not. The role of the *kāraka*, expressed in E8, is suppressed in E9

E8 राजा पुरुषाय वेतनं ददाति।

E9 राज्ञः पुरुषः।

6. It is विवक्षा once again, of the speaker to present a *kāraka* linking it with its verb, yet presenting it hazily, or suppress it, delinking from the verb— as in E10 and E11 respectively.

E10 मातुः स्मरति।

E11 वृक्षस्य शाखाः।

7. Of the *kārakas*, कर्तृ and कर्म can be expressed, if the speaker has the विवक्षा, through any of the five modes viz. तिङ् कृत् etc.

Example for expressing कर्म through कृत् is seen in Ei2

E12 लक्ष्म्या सेवितः हरिः।

This mode used up, he expresses the other कारक through the various विभक्ति-s (as in E7, above).

8. A same item can be presented as different *kārakas* as per, again, the विवक्षा of the speaker, E13 to E16 illustrate this:

E 13 पुष्पेभ्यः स्पहयात।

E 14 पुष्पाणि स्पृहयति।

E 15 पुष्पेषु स्पृहयति।

E 16 पुष्पाणां स्पृहयति।

9. It is again the विवक्षा of the speaker, to choose some item as करण and some as कर्तृ. This is borne out in the very definition for example of करण by भर्तृहरि - क्रियायाः परिनिष्पत्तिः यद् व्यापारादनन्तरम्। *विवक्ष्यते* यदा तत्र करणत्वं तदा स्मृतम्॥

10. Example E13 to E16 are *alternative* constructions, and a same item thus, cannot be presented as two *kārakas in the same sentence*. E17 gives an exception to this and the comment on E18 and E19 by Patañjali sets this forth.

E 17 आत्मा हन्ति आत्मानं आत्मना।

E 18 ब्राह्मणाभ्यां देहि।

E 19 ब्राह्मणाभ्यां कृतम्। says Pātañjali कर्ता संप्रदान इति अशक्यौ युगपन्निर्देष्टुम्।

11. It is the विवक्षा of the speaker to present an अधिकरण as करण or a करण as कर्तृ। E20 and E21 show this. E22 shows कर्म behave like कर्तृ।

E 20 स्थाल्या पचति।

E 21 असिः छिनत्ति।

E 22 लूयते केदारः स्वयमेव।

12. It is the विवक्षा of the speaker to use a particular verb, as in E23, to make an अधिकरण, a कर्म। See E23 and E24.

E 23 हरिः वैकुंठे शेते।

E 24 हरिः वैकुंठम् अधिशेते। thus विवक्षा can have multiple roles.

SEMANTIC PROBLEMS OF THE GENITIVE CASE

P. Narayanan Namboodiri

Ancient Indian grammarians have generally stressed on meaning as well as *śabda*. Patañjali has stated that *nahi śabdanimittakena nāmarthena bhavitavyam kiṃtarhi arthanimittakena nāma śabdena bhavitavyam. M.Bh. Sāma ākam,* 7.1.33. (Meaning is not there because of sound, what is then sound is there because of meaning). The other view is, again stated thus *śabdapramāṇakāḥ vayam yacchabda āha tadasmākan pramāṇam. M.Bh. Samarthah Padavidhi*, 2-1-1. (Language as used by people is the final authority of grammarians for us what word says is the authority). So Pāṇini's attempt to bring out an adequate descriptive grammar for Sanskrit cannot be criticised in the course of semantic analysis. Though Pāṇini's main concern was only to derive grammatically correct phrases and sentences, he has made use of semantic considerations in his *Aṣṭādhyāyī*. An attempt is made in this paper to study the possibilities of genitive case to accomplish the considerations regarding Semantics.

Kāraka is a concept viewed in relation to an action in the accomplishment of which it plays a given role. *Kriyājanakam kārakam karoti kartṛkarmavyapadeśāniti vyutpatteḥ.* They are six in number such as *apādana, sampradāna, karaṇa, adhikaraṇa, karman, kartṛ*. A sub-type of agent called *hetu* is also introduced. After assigning the *kārakas* in different operations Pāṇini has also assigned different cases to recognise the *kārakas* from *prathama* to *saptami* excluding *ṣaṣthī*. The change in the surface level does not affect in passive and active voice in deep structure level. Thus Cardona states, 'It is possible though not completely exact to say

that Pāṇini's definitions of *kārakas* are set up on the semantic level.' (*Pāṇini A Survey of Research*, p.218, 1975).

Genitive case is assigned by the *sūtra ṣaṣṭhi śeṣe*, p. 2.3.50. *śeṣa* is explained thus— *kārakaprātipadikārtha vyatiriktah svasvāmibhavādi samabandhah śeṣah tatra ṣaṣṭhī syāt*'. In other occasion Patañjali has defined *śeṣa* thus *karmādinām avivakṣa*. *saṣthi* is employed to show relations like *svasvāmi bhāva*, *avayavāvayavibhāva*, *janyajanakabhāvaḥ*. In the example *rājñaḥ puruṣaḥ* = King's man, the genitive case indicates owner-owned relation. The case is applicable with the word *rājan* because it stands secondary (*apradhāna*). *Prakṛtipratyāyarthayoḥ pratyārthasyaiva prādhānyam*. Thus the word *rājapuruṣaḥ* means *rājanirūpitasevakatva sambadhavān iti*. The relation between two meanings are generally understood by *samsarga*. In this example also as Bhāṣyakara points out *rāja viśeṣaṇam, puruṣo viśeṣyaḥ iti*, *samsarga* is the cause for cognition like all other *kārakas*. Genitive case in applicable to other *kārakas* like *karman, karaṇa* etc. if they are not intended to be expressed. While assigning genitive case particularly intention of the speaker carries a major role. Intention— *vivakṣa* is a technical device acknowledged by Pāṇini in *sūtra*— *upajñopakramam tadādyacikhyāsāyām*, 2.4.21. The desiderative affix *san* in this *sūtra* is the *jñāpaka* of intention. While considering the validity of the compound Vandhyāsutah Saraṇadeva author of *Durghaṭavṛtti* raises a question. How this type of combinations will take place due to lack of *samartha sambandha*. He also answers thus *buddhyavasito' tra sambandhaḥ*. *Yathā śilāputrakasya śarīram iti atra bhedaḥ*. The connection stands in the mind it is like the distinction of body and statue. Grammarians have accepted such type of meaningness in order to derive words like *kūrmakṣiram śaśaśṛṅgaḥ*.

Barned A. Van Nooten has put the main functions of *vivakṣa* concept as follows:

1. *Vivakṣā* is used to settle abstract questions of a philsophical nature.

2. *Vivakṣā* is used to justify grammatical sentence and preclude misappropriation of rules.
3. *Vivakṣā* as a regular *paribhāṣa*.
4. *Vivakṣā* as a neutral sense intended emphasized.

All the *kārakas* will only function if the speaker intends to express it so. This type of intention is restricted by the usages made by authoritative scholars: This intention is explained by King Bhoja in his *Sarasvatikaṇṭhābharaṇa*, 1.2.64. *Prayoktuh vaktum icchaya karmādīni kārakaṇi bhavanti. Vivakṣā ca kulavadhūriva na laukukīm prayogamaryādam atikrāmati.*

If the speaker wishes to speak *karman, karaṇa* become *kārakas*. Like a virtuous wife *vivakṣā* does not transgress beyond the limits of common custom.

Thus in the examples *satāmgatam*, 'going in respect of good men' *'mātuḥ smarati'* 'the recollection occurs to him of his mother' *sarpiṣo jānīte*, 'By the way of ghee the action takes place'; all the genitive case endings mentioned occur here in the sense of other *kārakas* though the intention of the speaker is to emphasize on the relation— *Sambandhaḥ. kaccit bhartuḥ smarasi subhage tvam hi tasya priyeti*, is an example. It can be stated thus genitive case will function just like a relation in respect of other *kārakas* if the sense of *kārakas* are not intended by the speaker. And if the speaker wishes to stress on *kārakas* these usages will be as follows :

santaḥ gacchanti

mātaram smarati

sarpiṣā jānīte

Thus the discriminative factor between these two types of sentences is only *vivakṣa* which is a technical device in order to justify grammatical sentence.

It is also stated *vivakṣādhīna hi śabdavyutpattayaḥ*. D.N. Basu has considered the view of ancient Sanskrit grammarians regarding genitive case which is not included in the *kāraka* group. He has attempted to emphasize the *kārakatva* of *ṣaṣṭhi* by serving

several example from various languages in the light of the definition *kriyājanakam kārakam.*

Yet another classification of genitive case lies in the intention of *śeṣatva* in the following eight *sūtras.*

jño'vidarthasya karaṇe - 2.3.51.

adhīgarthadayesām karmaṇi - 2.3.52

kṛṇaḥ pratiyatne - 2.3.53.

rujārthānam bhāvavacanānamajvareḥ - 2.3.54.

āśiṣi nāthaḥ - 2.3.55.

jāsiniprahaṇanaṭakrāthapisām himsāyam - 2.3.56.

vyavahṛpanoḥ samarthayoḥ - 2.3.57.

kṛtvorthaprayoga kāle adhikaraṇe - 2.3.58.

1. Of the verb *jnā* when not used in the meaning to know the instrument takes the sixth case.

   sarpiṣaḥ janite = He engages in sacrifice with ghee.

   madhunaḥjanite = He engages in sacrifice with honey.

2. Object of the roots having the sense of remembering and of *daya* and *isa* takes the sixth case.

   mātuḥ adhyeti = He remembers his mother

   sarpiṣaḥ dayate = He gives butter

3. The object of the verb *kṛ* takes the sixth case when it means to impart a new quality.

   edhodakasyopaskurute = The wood gives a new quality to water.

4. The object of verbs having the sense of *ruj* to afflict with the exception of *jvarayā* (feverish) take the sixth case when (the verb express a condition) the agent is an abstract noun.

   caurasya rujati rogaḥ = The disease afflicts the thief.

5. Of the verb *nāth* when means to bless the object takes the genitive case.

mathuno nathate = He blesses the honey.

6. The object of the verbs *jāsi* to strike *han* to strike, preceded by *ni* and *pra* to injure *krath* and *piṣ*— to injure takes the sixth case.

   caurasya ujjasayati = He injures the thief.

7. The object of the verb *vyavahṛ* and *paṇa* when they are synonymous (when they mean dealing in sale and purchase or staking in gambling takes the sixth case).

   śatasya vyavaharati = He deals hundred

   śatasya paṇate = He stakes hundred

8. The sixth case affix is employed in denoting location after a word denoting time when used along with a word ending with a suffix having the sense of *kṛtvasuc* = so many times.

   pañcakṛtvah ahnah bhuṅkte = He eats five times a day.

Some commentaries do not agree the *anuvṛtti* of *śeṣa* to *kṛtvortha* because it is not just followed by the *sūtra— vyavahṛpaṇoḥ samarthayoḥ*.

All the above said *sūtras* accept the concept of *śeṣa* and *kārakas* like *karman* and *karaṇa* are intended as *śeṣa* by which we get compoundless words like *sarpiṣahjñānam, mātuḥ smaraṇam, śatasya vyavaharaṇam.* By these *sūtras* Pāṇini allows the negation of compounds. *Pratipadavidhānaṣaṣṭhi na samasyate*. Bhartṛhari has stated thus:

Kārakairvyapadiṣṭe ca srūyamānakriye punaḥ
Proktā pratipadam ṣaṣthi samāsasya niṣiddhaye

So if there is the intention of *śeṣatva*, only *asamasta* forms like *sarpiṣahjnānam mātuḥ smaraṇam* are considered valid. If *śeṣatva* is not expressed, by the *sūtra—kartṛkarmaṇoḥ kṛti ṣaṣthi* will function and a compounded form *matṛsmaraṇam* will be valid. *Tatra ca kārakapūrvakatvāt gati kāraka ityādina kṛduttarapadaprakrtsvareṇa madhyodattatvam bhavati. Śeṣa ṣaṣṭhyā samāse tu antodāttatvam syāt taccāniṣṭam. Tadhā ca svarārtheyamaṣṭasūtrī iti niṣkarṣaḥ.*

So all the eight *sūtras* introduced here are for the sake of accent and to get the negation of compounds. Here intention of the speaker carries a major role in the classification of *ṣaṣṭhī*. In all these *sūtras* Pāṇini has either attributed or contradicted the meaning of roots to a certain extent by which he aims the classification through meaning. The word *artha* which means meaning is used as an indicator of synonyms in *Aṣṭādhyāyī*. In *sūtras* like *rujārthānam bhāvavacanānam ajuareḥ* 2.3.54. *tulyārthai ratulopamābhyam tṛtīya anyatarasyām* - 2.3.72. the negative parts *ajvareh* and *atula* try to exempt the words from the words having same meaning. So no third case will function if the words are *tula* or *upamā = tulā kṛṣṇasya upamā kṛṣṇasya.*

It cannot be assumed that a word gives only one meaning. Meaning is restricted through the desire of the speaker and through the capacity of the listener. Thus Nāgeśa has stated that the meaningness of *prakṛti* and *pratyaya* is not invariable. He has framed a *paribhāṣā avayavaprasiddheḥ samudāya-prasiddhiḥ balīyasi*. When conflict arises between the meanings obtained by grammatical treatises and usages of *siṣṭas* (*vyavahāra*) the second should be taken into consideration. That is why we get forms like *vīṇapravīṇaḥ gogoṣtham.* The agent of the object connected in the sense with a verbal derivative takes the sixth case which is termed *kṛdyogalakṣaṇā ṣaṣṭhi. bhavataḥ śāyika asti.* 'It is your turn to sleep'. When the agent and object are both connected with one and the same *kṛt* suffix it is the object that takes the sixth case. *āścaryaḥ parvatasyāroho andhena.* 'It is wonder that a blind person climbs a mountain' *citram aṇṅgirasena śiśunā adhyāpanam pitṛṇām.*

Pāṇini has made use of meaning while assigning sixth case in respect of *anādara*, disrespect. When disregard is also implied besides the marking of action, we have both sixth and seventh case *rudati rudato va prāvrajat.* 'The father renounced the world despite the cries of his son'. *Paśyati svarṇasvāminijane paśyataḥ svarṇasvāminaḥ janasya svarṇāni harati svarṇakaraḥ iti paśyatoharaḥ.*

Thus it may be concluded that though the process of derivation, by classifying *prakṛti* and *pratyaya* is the main concern of Astādhyāyī, Pāṇini has considerations for meaning also.

Reference

1. *Pāṇini A Survey of Research*, Cardona, 1975.
2. Proceedings of International Seminar on the *Aṣṭādhyāyī* of Pāṇini, Poona University Publication, 1983.
3. *Mahābhāṣya*, Ed. Keilhorn, 1962.
4. *Vaiyākaraṇa Siddhānta Kaumudi*, 1965.
5. *Arthavicāram*, Vedabandhu.

THEORY OF GENDER AND ITS GENERATION IN PĀṆINI

KAPIL KAPOOR, SANTOSH KUMAR SHUKLA

This paper is in two parts - (i) theory- of gender in Sanskrit grammar, and (ii) the assignation of gender in *Aṣṭādhyāyī*.

I

LINGUISTIC GENDER is a problem both for users and grammarians because of the absence of one to one relation, between gender in language and gender (sex) in life - while in life and world only animate objects have sex, in language both animate and inanimate objects have a gender assignation Which word will have what gender is determined by worldly usage. Apart from the arbitrariness of gender assignation in language usage the same word / object may have more than one gender. Thus for 'wife' the two Sanskrit words *jāyā* and *dārā* have two different genders, feminine and masculine respectively. The word *dahi* in Hindi is variably, masculine and feminine The word *pustaka* is neuter, *grantha* is masculine and *pustikā* is feminine. It is difficult. to begin with to define gender - Bhartṛhari cites[1] seven views concerning it of those who know the truth concerning gender: (1) that it is the relation of a thing with sex signs such as breast and hair (2) that it is the sex-signs themselves characterised by that relation (3) that it is the universal manifested by the sex-signs (4) that it is the three conditions of the three *guṇas* (*sattva, rajas*, and *tamas*) (5) that it is the three *guṇas* themselves in these conditions (6) that it is an attribute created in objects by words (7) that it is an attribute

1.*Vākyapadīya* 3-13-1.2

of the words themselves.[2] On account of this complexity. determination of gender by usage is postulated by both Pāṇini and Patañjali. In1.2.53 (*tadasisyam sanjñāpramāṇatvāt*). Pāṇini modifies the preceding *sūtras* and characterises the whole question of concord of number and gender of primary and derived nouns and of attributes and substantives as a matter of convention to be decided by usage as no hard and fast rule can be laid down for it. And on Pāṇini 2.1.35. Patañjali says: *liṅgamasisyam lokāśryatvāt liṅgasya*, that is gender-system cannot be taught (is not reducible to rules that is to a system. Conventions associated with the word (*śabda saṃskāra*) are the base for gender assignation. Even when it is enumerated in *Liṅgānuśāna*, it is based in *loka* the world of usage. So a distinction is made between gender in life (*laukika liṅga*) and gender in grammar (*śāstrīya-liṅga*) and the grammarians are asked to focus on the grammatical gender. Patañjali through *sarva bhutarya* in '*sarvasacha punarbhūtarya evamātmika: samstyana-prasva guṇa*:' suggests that gender is conceived as a property of all *padārthas*. objects both animate and inanimate[3] .

Also it is suggested that all the three genders inhere in an object: even in reference to all external objects whose sex is understood by the mind it is possible to have the cognition of the other genders—'This is due to words having different genders that present these objects'[4] This kind of perception has a wider psychological reality- just as a cognition in which water figures takes place in mirages even though there is no water there through the former impression which is favourable to the perception of water, in the same way, distinctions of gender (*liṅga*) are understood from the words *tārakā* etc., even though the things which they denote have no distinction of sex as from words denoting things having distinction of sex.[5]

2. K.A.Subramania Iyer. The *Vākyapadīya* of Bhartṛhari, Chapter III. pt.II. MLBD. Delhi-174

3. *Mahābhāṣya* on Pāṇini 4-1-3

4. *Vākyapadīya* 3-13-4.7

5. Ibid 3.13.8.9

This being the case, how do we establish a given word in a given gender? How to assign gender to a given word? This is contingent on *vivakṣā* [6]—*vivakṣato vyavasthā*. The rules of gender (*liṅgānuśāsana*) express this very *vivakṣā* of the speaker. These rules determine the gender-acceptability (*liṅga-sādhutva*) of words. Bhartṛhari says-

sthiteṣu sarvaliṅgeṣu vivakṣaṇīyamāśrayā
kasyacicchabdasaṃskāravyāpara: kvacidiṣyate [7]

Although all three genders are supposed to inhere in the objects only one gender becomes the *nimitta* (instrument of marking) of a given word in use and that word is *sādhu* only in that gender. [8] Bhartṛhari says that this is so because any one of the many existing properties of a word is the cause of its application and that cultured people who can see the truth and who know the words and meanings adopt whatever gender leads to 'merit'[9] that is communication of the correct meaning as Sri Subramania Iyer says in his gloss on *kārika* 3-13-20:

It is not only in regard to gender that words express only one among the many properties which exist according to the will or intention of the speech community. A potter makes other things than pots and yet his name expresses only one of his many activities. In the same way a word denotes any one of the three genders all of which exist in everything![10]

The speaker's *vivakṣā* we said determines the gender which is to be assigned to the word. However *vivakṣā* itself is governed by ontological possibilities; that is it is a choice from among the given possibilities. What are these governing conditions? Counting four major flaws in basing grammatical gender on worldly

---

6. For the concept of *vivakṣā* in Bhartṛhari, see the essay in Langauage, Linguistics and Literature: The Indian Perspective (Kapil Kapoor) 1994. pp

7. *Vākyapadīya* 3-13-19

8. It is believed that originally each word could be used in all the three genders; later, through convention and reasons of phonology and grammar. The restriction to one gender came about. Some words however, continue to be used in two or three genders.

9. *Vākyapadīya* 3-13-31

10. The *Vākyapadīya* of Bhartṛhari III. pt II. p 114

gender.[11] Patañjali argues that *guṇāvasthā* must be accepted as the major cause of gender-differentiation. that is the quality of a particular state or condition (of the object)- this and the meaning generated by the word-use (*śabda upajanita artha ātma*) and the determination of gender must be through *samstyana* (*apacaya*, decline?) and *prasava* (*upacaya* accretion)- '*samsatyanaprasavau liṅgamastheyau svakṛtantata*:[12] The grammatical gender in Sanskrit is based in the principles of accretion and decay derived from the Sāṃkhya theory of *triguṇātmaka prakṛti*. When there is the rise of any two of the three *guṇas*. the gender assigned is masculine: when there is a decline feminine and when the state of balance is maintained the neuter gender. Helaraja has defined the genders in these terms in his commentary on *Liṅgānuśāsana* and Subramania Iyer explains it thus:

All things are based on the following notions. All things are combinations of the five qualities *śadba*, *rasa*, *rūpa*, *sparśa*, and *gandha* which again are made up of *sattva*, *rajas*, and *tamas*. Everything has therefore the properties of these qualities and their properties are: *prakāśa* (light) *prasavah* (accretion). *āvirbhāva* (manifestation) for *sattva pravṛttiḥ* (alert principle) *kriyā* (action) for *rajas* and *varaṇam*. *tirobhava* (decline), *sthitiḥ* (state). for *tamas*. These three properties are the three genders. All the time qualities *rūpa*. etc., are constantly changing. But these changes are not perceptible to all. We see only their final result. Patañjali himself has declared that nothing remains as it is even for a moment. Everything is constantly changing like boiling water. Everything is constantly appearing and disappearing (*āvirabhāva and tirobhāva*) and these are the two main characteristics of the two main genders.[13]

Patañjali and later Bhartṛhari accounted for the variability of gender of the same object as expressed by different words in terms of the philosophy of flux— they say that many properties inhere in objects and these properties are constantly changing[14] and at a given point of time according to which property is seen to be

11. See *Mahābhāṣya* (MB) on Pāṇini 4-1-3, '*liṅgātstreepuṃsamyogarne bhrukunse tap prasajyate/natvam kharkuti: paśya khatvavṛkṣau na siddhyata:*'

12. *Mahābhāṣya* on Pāṇini 4-1-3

13. The *Vākyapadīya* of Bhartṛhari. III. ii pIII

14. *Vākyapadīya* 3-13-16

manifest or in ascendance the particular gender is assigned and this gender may be actually seen in the object or is superimposed as though it were seen and is nothing more than part of the correctness of the word[15] just as even when singularity is well established. Words expressive of plurality produce the cognition of plurality such is the case with gender.[16] Thus 'According to differences in limiting conditions. a particular property of the *guṇas* becomes the cause of correctness and the object of *vivakṣā*[17]. Gender in this way is only a factor in the formation of words[18] and it helps us to see the given object in a particular perspective. Just as a word has the power to express a meaning it also has the power to express the gender variation (*vyāvartana*). Bhartṛhari uses the term *upādāna* for this power of the word[19]. Gender is not the expressed meaning (*vācyārtha*) but only an aspect of this meaning of a word.

Different expressive sequences of sounds are used to express different genders of the word/words whereby the inhering gender of the object becomes the gender of the word/words. According to Bhartṛhari on the basis of fixed or variable gender words are classifiable into seven sets:

Śabda

Fixed gender:	Variable gender
Feminine—*kanyā lakṣmī, matṛ*, etc.	Fem-masc—*brāhmaṇa:, brāhmaṇi:*
Masculine—*puruṣa:,samudra:, artha:*,etc.	Fem—Neu-*bheṣajam, bheṣaji*
neuter—*dhanam, mitram*, etc.	Masc—neu-*śekha:, śekham,*
	fem-masc-neu—*tata:, tati, tatam*

15. *Vākyapadīya* 3-13-28

16. Ibid 3-13-29

17. Ibid 3-13-24

18. Ibid 3-13-30

19. *Vākyapadīya* 3-13-3

upādānavikalpaśca liṅgānām sapta varṇita
vikalpasaniyogābhyām ye śabdeṣu vyavasthita

We have thus three kinds of words- (i) with fixed gender: (ii) with variable gender, and (iii) without gender. such as *ākhyāta (tiṅanto pada)*, *avyaya* and *sarvanāma*, *asmada*, *yuṣmada*, etc.

While sex is part of the meaning of a word, gender in Sanskrit as in other languages is a property of the word-form-that is why when a different word is used for the same object it may have a different gender. As Kātyāyana observes- *'ekarthe śabdānyatvād dṛṣṭam liṅgānyatvam'*.[20] And if the gender of the word and the gender of the object in the world happen to be the same it is seen as merely a matter of coincidence.

II

Pāṇini handles the question of gender exhaustively in his grammar in his paradigm mode of explanation through:

rule lexicon

i. For compounds

ii. for feminine affixation *Liṅgānuśāsana* (one of the three ancillary texts)

Rules 2.4.1-31 delineate the gender of compounds. These rules precede the rules for pitch levels in compounds but are placed after the rules for the number of compounds as number is in some compounds a condition for its gender. For example, the rule 2.4.17 *-sa napumsakam* is in continuation of all the preceding sixteen rules. 2.4.1-16 which specify the conditions under which a *dvigu* or a *dvandva* compound is in the singular. With *anuvṛtti* of *ekavacanam, dvandva:, dvigu:*, this rule 2.4.17 enjoins that the *dvigu* or the *dvandva* compound with regard to which singular number has been ordained by the above rules is always a neuter gender. Different kinds of conditions for gender specification are incorporated in this set of rules for the compounds: (i) a grammatical type, viz. The *avyayībhāva* vide 2.4.18 : (ii) a derivative affix in conjunction with meaning viz., certain *tatpuruṣa*

20. Nāgeśa explains the same fact in *kārika* 25 of his *Vyākaraṇabhūṣaṇasāra*

and *karmadhāraya* compounds vide rules 2.4.20-22.24: (iii) a particular final word when preceded by a particular word vide 2.4.23 : (iv) the first word in association with a particular word vide 2.4.27: (v) a particular word *apothem* vide 2.4.30: (vi) a *pathetic Ana*, exhaustively enumerated class of words with dual gender-marking the masculine besides the neuter. The rules also accommodate optionally — as distinct from dual marking - in enumerated cases as for example rule 2.4.25 and the exception in the case of *chhandas* (vide 2.4.28 which debars the general rule 2.4.26).

The process of deriving feminine forms by affixation is laid down in 4.1.3 to 4.1.77. In the derivational process the formation of the feminine takes place immediately before the process of nominal inflection begins. The following affixes are set up in the order below:

1. tāp - 4.1.4
2. ṇīp - 4.1.5 to 4.1.39
3. ṇīṣ 4.1.40 to 4.1.65
4. ung 4.1.66 to 4.1.72
5. ṅīn 4.1.73
6. cāp 4.1.74, 75
7. ti 4.1.77 to 4.1.81

This set of rules and the way they are organised and ordered also illustrate the principles of knowledge representation in*Aṣṭādhyāyī*-principles that one cannot claim are fully understood yet. For example, the need to posit the one-rule domain of the ṅīn affix in a complex alternation with the phonetically identical affix ṅīṣ in that is becomes in turn a condition for the accent on the first syllable among other things. Also on what grounds is 4.1.4 a restriction rule for 4.1.5 to 4.1.65.74-5: that is how tāp is an exception and under what conditions to ṅīp ṅīṣ and cāp? These are questions pertaining to the analysis and representation of very rich and complicated information domains and have to be examined in

relation to some self evident principles of orgînization, for example ordering principles such as general to particular which informs not only the injunctive rules but also exception and restriction rule as would be clear from an examination of any one set of rules given above, say 4.1.5 to 4.1.39 for the ṇīp affix.

For example, the ṇīp affix is-

enjoined after given sounds

indicatory sounds

given final syllables

blocked after adjectives (functional classes)

particular final syllables

some compounds ending in certain syllables

excluded from a whole construction type by a **metarule**

enjoined after given derivational affixes

affixes with a given denotation

regional variation specified (in compounds)

enjoined obligatorily infixed feminine affix in certain collocations

blocked after certain collocations

optional after collocations ending in certain syllables

but **obligatory** in *chhandas* (a different kind of discourse)

after stems with given denotation (with some exception)

consequent obligatory morphological changes specified (4.1.34 to 4.137) but

optional in given phonological, morphological and semantic contexts

Evidently. Pāṇini is seeking generalisation and systematisation in an area of grammar which is recognised to be arbitrary and not amenable to rules. Through intensive phonological, morphological and semantic analysis he makes the feminine derivation almost completely rule-bound by specifying the phonological, morphological and semantic conditions for the attachment of the affixes.

The second mechanism of gender assignation in *Aṣṭādhyāyī* is enumeration- the *Liṅgānuśāsana* classifies words as we said above into seven classes. Eight elements are postulated for assigning gender to *śabda* (words):

1. Compounds - *rājakumārī* (fem): *gaurī gaṇeśa* (masc)
2. Specific meaning- *akṣa* (masc. in meaning other than eye): *akṣam* (neuter in the meaning 'eye')
3. Specific words- *agni* (masc): *amśa* (masc): *ankam* (neuter)
4. *Abhidhāna* (meaning)- *nadī* (words expressive of or synonyms of will be fem.) *deva* (masc)
5. *Upadhā* (penultimate sound)-*k-pada* masc. *(bālaka): I-pada* neu.
6. Final sound (phonological condition)- final *a* in derived forms-masc-neu. final *a* in basic words *matṛ* (fem). *pitṛ* (masc)
7. Final affix - form function or meaning of derivational affixes[21].
8. Worldy gender (sex)

Some other principles for gender marking are aslo to be noticed in *Liṅgānuśāsana*:

1. of adjectives - fem., masc., neu., according to the gender of the head
2. of modifiers of adjectives- neuter
3. of numerals- in all the three genders but not all numeral expressions.

---

21. examples - *taddhita*: *aśva:* (masc)
kṛta : *gacchana kala* : (masc)
kṛtva : *peyam jalam* (neu)
strī : *aga* (fem)
unādi : *garuḍa*: (masc)
avyayānta: *pathitum* (neu): *pathitvā* (neu)

4. of pronouns- but for some pronouns are three-gendered.
5. of tree, fruit genus- neu. fem. with some exceptions
6. of *anukaraṇa śabda* - neuter (*'rāma!' iti uktam tena*)
7. of adverbs- neu. (*mandam vadati*)

Bhartṛhari has thus outlined the seven forms of grammatical gender.

SEMANTIC PERSPECTIVE ON STRĪPRATYAYAS

PRAHLADA CHAR

ALTHOUGH THE science of grammar is regarded as the domain meant exclusively for the discussion regarding the formation of words, the other branches of philosophy such as Nyāya, Mīmāṃsā and Vedānta also have shown considerable interest in grammar so far as the semantics of affixes, is concerned. Regarding the meaning of the case affixes such as the *sup* and *tiṅ*, as is well known, these schools hold extremely divergent views and interestingly, they challenge even the grammarians who may be said as pioneers in this field. However, regarding the semantics of feminine affixes, we do not find any discussions in these schools. But, under the *sūtra* स्त्रियाम् (p.4.1.3) we find in *Mahābhāṣya* an interesting discussion about gender, in general, and feminine gender in particular. The *sūtra*' स्त्रियाम् being an *adhikāra sūtra*, simply states that the affixes that will be treated in this chapter herein *Aṣṭādhyāyī*, must be employed when feminine nature is to be indicated. Then Patañjali naturally raises the question as to what exactly is this feminine nature. He clarifies the question by referring to the लोकप्रसिद्धि according to which certain words are known to be in feminine gender while the others are known to be having masculine or neuter genders. Obviously the question he raises pertains not only to the nature of feminine given but also about to what they belong to. If the convention of laymen is taken into account then feminine gender is possessing certain features and masculine gender also is nothing but possessing certain peculiar features. Patañjali refers to this worldy convention :

स्तनकेशवती स्त्री स्यात् लोमशः पुरुषः स्मृतः।
उभयोरन्तरं यच्च तदभावे नपुंसकम्॥

Having referred to this view, Patañjali rejects it on the ground that, in that case the words such as भ्रूकुंस also will have to be considered as in feminine gender. For, भ्रूकुंस - an actor playing the role of female characters in dramas, has to appear on stage with female characteristics and naturally people would recognise him as a woman. Consequently, the word भ्रूकुंस will have to be added with feminine affix टाप् as per the *sūtra* 'अजाद्यतष्टाप्'.

'लिङ्गात् स्त्रीपुंसयोर्ज्ञाने भ्रूकुंसे टाप् प्रसज्यते' (*M.B.*Vol. IV, p. 17)

Similarly, the words such as खरकुटी which denote नापितगृह - barber's shop, abundant with the hairs cut, will have to be regarded as being in masculine gender and as the result the accusative case affix i.e. शस् after the word खरकुटी in the sentence 'खरकुटीः पश्य' should be replaced by the letter 'न्' as per the *sūtra* 'तस्माच्छसो नः पुंसि'.

'नत्वं खरकुटीः पश्य' (Ibid p. 18)

Further, Patañjali points out that the words such as खट्वा - cot and वृक्ष- tree cannot be said as in femine and masculine genders, respectively for they do not possess the feminine or masculine characteristics. Instead, such words will have to be considered as having neuter gender.

'खट्वावृक्षौ न सिध्यतः, नापुंकं भवेत्तस्मिन् (Ibid.)

Or, we may have to subscribe to the view that the genders in these words are absolutely non-existant and yet they appear as mirage or the city of Gandharvas in the sky.

Moreover there are certain words which are known to be in all the three genders. For instance, the word तट. Patañjali, questions as to how a word like this or any such word can have all the three genders which cannot exist together.

'तटे च सर्वलिङ्गानि दृष्ट्वा कोऽध्यवस्यति' (Ibid.)

Patañjali, in a lighter vein, continues further to ridicule the views that the gender in words, is none other than certain characteristics on which the worldly conventions are based, and

concludes that the लौकिकलिङ्ग has no place in grammar and the grammarians have to evolve their own stand on the concept of लिङ्ग.

Accordingly, he states -

संस्त्यानप्रसवौ लिङ्गमाख्येयौ स्वकृतान्ततः। (Ibid. p.22)

This means that as per the grammarian's point of view संस्त्यान is feminine gender and प्रसव is masculine gender. But, what is this संस्त्यान and प्रसव? As Patañjali himself shows, the word स्त्री is derived from the root स्त्यै from which the word संस्त्यान is derived. Similarly, the word पुमान् is derived from the root सू with which the word is derived. [1] If this etymological sense is taken into account then संस्त्यान means the person in whom something, in the present context, an embrio takes a shape and प्रसव is a person one who fathers a child. But these meanings cannot be considered now, as the words भ्रूकुंस, खट्वा etc., do not have this kind of gender. Hence, Patañjali holds the view that the words संस्त्यान and प्रसव are used in a technical sense here. Accordingly[2] संस्त्यान is तिरोभाव i.e., disappearance and प्रसव is manisfestaion.[3] This naturally leads to the question as to what is it, the तिरोभाव or आविर्भाव of which is intended here.

Patañjali replies that it is the तिरोभाव or आविर्भाव of the qualities such as सत्त्व, रजस् and तमस्. Since these qualities are beyond the sense organs, he further clarifies that the qualities such as शब्द, स्पर्श, रूप, रस, गन्ध are meant here. All the substances, according to him, do possess these qualities and thus the gender can be said universally present. But, all these qualities are not present everywhere. In some substances only three i.e. शब्द, स्पर्श and रूप are present. So where the तिरोभाव of these qualities, is found it is regarded as having the feminine gender, and where all these qualities are manifest it is known as having masculine gender.

---

1. संस्त्याने स्त्यायतेर्ड्रट् स्त्री, सप् प्रसवे पुमान् - *M.B.* under Pāṇini *sūtra*. 4.11
2. संस्त्याने स्त्री, प्रवृत्तिश्च पुमान् - Ibid pp. 22

संस्त्यानमिति तिरोभावः प्रवृत्तिराविर्भावः - प्रदीप on the above *M.B.*

3. कस्य पुनः संस्त्यानं स्त्री प्रवृत्तिर्वा पुमान्? *M.B.* pp. 22

When both तिरोभाव and आविर्भाव are noticed, it is neuter gender.[4] If, thus the presence of these qualities decide the gender of objects, again the question may arise that since these qualities are present in all the objects how to decide that a particular object has only a particular gender and that is denoted by the word. Patañjali replies that in this regard, it is the usage of the learned, that helps us.[5]

The above explanation offered by Patañjali, it is needless to say, is not convincing. Instead of solving the problems, it gives rise to new problems. First of all, do the words convey the gender intended here? To be precise, do the words in feminine gender, such as खट्वा etc., convey the three qualities and similarly, do the words such as वृक्ष which are in masculine gender, denote all the five qualities? And what about the words in neuter genders? Patañjali says, when both संस्त्यान and प्रसव are intended to be conveyed, then it is neuter gender. It means, if both तिरोभाव and आविर्भाव of the qualities are intended to be conveyed then it is neuter gender. In other words, when the presence of just three qualities and the manifestation of all the five qualities are intended to be conveyed, then it is neuter gender. Is it possible to convey such a combination of तिरोभाव and आविर्भाव ? All these questions probably will remain without a satisfactory answer.

However, the explanation offered by Jñānendra Saraswati, the author of Tattvabodhinī a commentary on the *Siddhāntakaumudī*, seems to be more convincing. According to him, all the three genders, in the context of grammar, are just technical. They are present in all the objects of this world. For, the usages such as 'इयं व्यक्तिः' and 'इदं वस्तु' are found being made in respect of all the objects, irrespective of their gender in the

---

4. गुणानाम्। केषाम्? शब्दस्पर्शरूपरसगन्धानाम्। सर्वाश्च पुनर्मूर्तस्य एवमात्मिकाः-संस्त्यानप्रसवा गुणाः शब्दस्पर्शरूपरसगन्धवत्यः। यत्राल्पीयांसो गुणाः तत्र अवरतः त्रयः- शब्दः स्पर्शः रूपमिति L...... यद्युभयं सर्वत्र, कुतो व्यवस्था? विवक्षातः। संस्त्यानविवक्षायां स्त्री, प्रसवविवक्षायां पुमान् उभयविवक्षायां नपुंसकम्। Ibid pp. 23-25

5.तस्योक्तौ लोकतो नाम - Ibid pp. 25
लोकतः शिष्टलोकात् तस्य लिङ्गस्य प्रतिपादेन व्यवस्थाऽनुगन्तव्येत्यर्थः - प्रदीप.

common parlance. For example a man may be referred to as 'इयं व्यक्तिः' and 'इदं वस्तु'. A female also may be referred to by these expressions. Thus the technical genders may be regarded as universally present.

Though thus all the objects of this universe possess all the technical genders, certain words are capable of denoting certain gender only. Another peculiarity is that certain words have the denotative power to denote the technical gender associated with the same worldly gender. For instance the words कुमार and ब्राह्मण denote such persons in whom both *śāstrīya* and as well *laukika* genders are present. Similarly, certain words have the denotative power to denote only one gender. Whereas certain other words have such power to denote two such genders and some others to denote all the three genders.[6]

But even this view is questionable. For it is against to the Mīmāṃsā convention. While discussing the meaning of the sentence 'पशुना यजेत' - the Mīmāṃsakas take the stand that the word 'पशु' here denotes masculine gender. If this gender, as claimed by the grammarians, is a technical one, then since such a gender is universally present, even the sacrifice of a she-goat, will have to be said as permitted by the above sentence. But the Mīmāṃsakas hold that it is the sacrifice of only a he-goat that is enjoined by the sentence. But as already said the grammarians do not subscribe to the view that the *laukika* genders are denoted by the words and hence such a gender cannot be said as denoted by the word.

The grammarians have an answer to this problem. Just as the Mīmāṃsakas and the Naiyāyikas bound by certain doctrines peculiar to their schools take liberty in the interpretation of the Pāṇinian *sūtras*, here is an instance where the grammarians interpret a Jaimini *sūtra* from the grammarian point of view. They argue that the Jaimini *sūtra* 'छागो वा मन्त्रवर्णात्' which is cited as the *sūtra* deciding the meaning of the word 'पशु' in the sentence

---

6. तत्त्वबोधिनी pp. 110. Nirnaya Sagar Press edn.

'पशुना यजेत', actually denotes the technical gender associated with the *laukika* gender. Thus the word 'पशु' in the above sentence denotes only that gender which the grammarians claim as technical gender.

Now, still the question as to what exactly is this technical gender, remains to be answered. Probably, Hari has the answer to this question. He says-

तिस्रो जातय एवैताः केषाञ्चित् समवस्थिताः।
अविरुद्धा विरुद्धाभिः गोमनुष्यादिजातिभिः॥

Accordingly, these genders are the generic attributes which may be designated as -पुंस्त्व, स्त्रीत्व and नपुंसकत्व. These reside in the objects along with the other generic properties such as गोत्व and मनुष्यत्व. The peculiarity of these generic attributes called technical genders, is that while गोत्व and मनुष्यत्व etc., generic attributes are contradictory to each other and hence do not co-exist, these are not contradictories and they may reside together. That is why one and the same object can be signified by the words of different genders. The words तटः, तटी, तटम् are the examples for this.

This view of Bhartṛhari seems to be more satisfactory. But the question is whether such a gender is the object of the verbal cognition produced. Here, the Nyāya view is that the feminine affixes in the words such as तटः, तटी etc., are only for the sake of grammatical correctness and they do not convey any gender in the objects.

Another interesting point, regarding the feminine gender that Patañjali discusses, is whether it is conveyed by the affixes such as टाप्, ङीप् etc., or by the stem itself. Since the affixes are called स्त्रीप्रत्यय it is but natural to assume that the gender is conveyed by the affixes. But, Patañjali argues differently. He contends that if the feminine gender is conveyed by the affixes then the use of dual and plural numbers would become wrong. For, the स्त्रीत्व denoted by the affix is only one and the numbers द्वित्व or त्रित्व denoted by the same affix, is not there. So, he argues that if the feminine gender is denoted by the affix itself then all the words

ending with feminine affixes should be in singular number affix only.[7]

Another objection that he raises against the view that the feminine gender is denoted by the affixes, is that in certain words more than one feminine affix is found to have been used. In case, the affixes denote the gender then such a use of many affixes would be incorrect for they become redundant. The words गार्ग्यायणी करीषगन्ध्या etc., are cited by him as the instances in which more than one feminine affix is involved.[8] Here, the point is that if the stems are considered as expressive of the gender, the use of many feminine affixes, in a single word can be justified. For, the affixes, now are only suggestive and there would not be any redundancy if more than one suggestor is used.

Patañjali also refers to another view according to which it is the stem associated with a feminine affix, that denotes the gender. Since, now neither mere affix nor mere stem denotes the gender, it may be considered as the view devoid of the shortcomings that the earlier views have. But, Patañjali finds fault even with this view. He points out that in that case the words 'भूत' 'कारण' etc., in the statements 'भूतमियं ब्राह्मणी' and 'कारणम् इयं ब्राह्मणी' etc., should get the feminine affixes. For, 'भूत' 'कारण' etc., words also have the association of the feminine affix. Here what kind of association is intended, is not clear. *Mahābhāṣya* uses the word 'समानाधिकरण' here.

Though thus Patañjali discusses at length, as to what exactly is the expressive of the feminine gender, it appears that both the views are acceptable to him. Under the *vārtika* सिद्धं तु स्त्रियाः

---

7. स्त्रियामपि स्त्र्यर्थाभिधाने चेत् टाबादयो भवन्ति द्विवचनबहुवचनयोरनुपपत्तिः–कुमार्यौ कुमार्यः, किशोर्यौ किशोर्यः। कि कारणम्? एकत्वात् स्त्रीत्वस्य। एकोऽयमर्थः स्त्रीत्वं नाम। तस्यैकत्वादेकवचनमेव प्राप्नोति। *M.B.* pp.26

8. अनेकप्रत्यानुपपत्तिश्च। अनेकश्च प्रत्ययो नोपपद्यते – गार्ग्यायणी कारीषगन्ध्या, कलितरा इति। किं कारणम्? एकत्वात् स्त्रीत्वस्य। एकोऽयमर्थः। स्त्रीत्वं नाम। तस्यैकेनोक्तत्वाद् द्वितीयस्य प्रयोगेण न भवितव्यम्। किं कारणम्? उक्तार्थानमप्रयोग इति–Ibid. pp.27 ...... कालशब्दात् जानपदादिसूत्रेण ङीप्। ततष्टाप् न प्राप्नोति। ङीपा स्त्रीत्वस्योक्तत्वात् – प्रदीप. pp.27

प्रातिपदिकविशेषणत्वात् स्वार्थे टाबादय: (Ibid. pp. 28) he takes the stand that the feminine gender actually qualifies the meaning of the stem and hence it is quite natural to hold that the stem itself denotes the gender. Here he further holds that the affixes like टाप् etc., can be considered as having no other meaning (स्वार्थे).

Then again he also approves the other view that it is affix that denotes the gender -अथ वा पुनरस्तु स्त्रियामभिधेयायामिति'. Regarding the objection that since स्त्रीत्व is only one, the dual or plural numbers would not be suited and hence all the words in feminine gender should get only singular number, Patañjali's reply is very apt. A word takes the gender and numbers following the number and the gender that the object denoted by the stem has. 'गुणवचनानां हि शब्दानाम् आश्रयतो लिङ्गवचनानि भवन्ति'. It is obvious here that both the views are actually not contradictory to each other and both of them are acceptable from different angles.

The *Pāṇini sūtras* that emplcy different feminine affixes, show that sometimes the meaning of a word would change following the change in the affix. However, the present paper limits itself to a few points discussed in the *Mahābhāṣya* under the *adhikāra sūtra* 'स्त्रियाम्'.

GENDER DESCRIPTION IN VYAKĀRAṆA

MEERA CHAKRAVARTY

THE CONCEPT of gender in the works of Vyākaraṇa are often centred in ambiguity, and at times the references made to gender appears as if it has been imposed. It is this search for a proper concept of gender which has brought me to the great scholars of grammar to reclaim the loss of gender. My avenues for success may be marginal, or, even may become too distant for me to even imagine as a possibility. It is also possible that a well developed concept of gender did exist but somehow was lost from our collective consciousness or devalued, for which reasons may have been destroyed or manipulated, yet the search is worth pursuing.

Traditionally, *prakṛti* is said to be of two kinds, *nāman* or *prātipadika* and *dhātu*. *Nāman* indicates an object as Yāska says सत्वप्रधानानि नामानि. He seems to be implying that *nāman* and *dhātu* are not really different and unconnected since an idea of an object is latent in the *dhātu* and *kriyā* is implied by *nāman*[1] Thus the element which exist in *nāman* develops into a *prātipadika* using *kṛt* suffixes, After this process it is able to denote a substance with number and gender.

There is some truth in the cliché 'The more things change, the more they stay the same'. In the Kātantra system, *prātipadikas* or *liṅgas* as they are called is, that initial form' which is dissociated from *dhātus* and *vibhaktis*. The *prātipadikas* are important since they go to constitute words which are significant अर्थवदिति व्यपदेशाय मा भूतिदिति [2]. Left to themselves the letters are not meaningful but

---

1. नास्ति यो धातुः सकृतप्रत्ययोपजनितेन.... प्रातिपदिकान्तर्लीन वृत्तिरेव... द्रव्यप्रधान एवं भवति। *Nirukta* P. 40.

2. *Mahābhāṣya* under Pān 1.2.45.

when constituted into words they carry meanings. *Kātantra pariśiṣṭa* explains अर्थवत् as signifying both the सत् and असत् and mentions that by this term one has to understand, those words which have the शक्ति of expressing the meaning independently अर्थवदिति सतोऽसतो वार्थस्यभिधायकमुच्यते, यस्येतरनिरपेक्षयाभिधानशक्तिरस्ति तदिहा र्थवत्वस्येयं संज्ञा। [3]

If, in the Kātantra system the term *liṅga* is synonymous of *prātipadika* then it is clear from the above that it is possible to discern different phases in thinking regarding the problems and concepts of words and their behaviour. These phases may have overlapped in historical time and may not appear distinct actually as one can make them out to be. But as an organising principle the classifications may serve a purpose, the purpose of giving us a perspective on the past and producing some order out of welter of ideas that has surrounded the subject from the beginning.

Thus for instance, if both existent and non-existent are meaningful then in cases like शशविषाण and आकाश कुसुमम्, which are used as regular पंद with सुप् added to them, what would be their status ? Gopinātha the commentator on *Kātantra* says that there can be no लिंगसंज्ञा or प्रातिपादिकसंज्ञा associated with such words शशविषाणादावभिधेयस्याभावात्, लिंगसंज्ञा न प्राप्ता [4]. One who is committed to the treatment of the Sanskrit Grammar's precise' controlled and technical system may feel exasperated with such retreat to ambiguity.

Clear expression, often equated with correct expression, has long been the criterion set forth in *śāstras* and important treatises, whose aim was to order discourse so as to persuade clarity. Clarity, as a purely rhetorical attribute, serves the purpose of a classical feature in language, namely, its instrumentality to assure unambiguous message. But obscurity is an imposition on the reader if gender, number, *kārakas*, class and individual are also signified

---

3. नासप्रकरणम्। *Kātantra Pariśiṣṭa*.

4. Ibid.

by *prātipadikas*, स्वार्थोद्रव्यं च लिङ्गं च संख्या कर्मादिरेव च, अमी पञ्चैव नामार्थ स्त्रयः केषांचिदग्रिमाः।[5]

If clarity is a means of subjection, a quality of correct language which impose an order, then, number and *kāraka* should be taken as the meaning of *pratyaya* (the base and suffixes). But if *prātipadikas* denote everything as mentioned above, then the *pratyayas* become merely signs or indicatives (द्योतक). Almost nothing is left to be expressed by *pratyayas*. *Prātipadikas* are the base to which *pratyayas* like *ṭāp*, *ṇīp*, are added to indicate gender प्रातिपादिक प्रकृतिकाः स्त्रियामित्यनेन विहिताष्टाबादयः क्वचित् स्त्रीत्वं प्रकृत्यर्थविशेषणतया बोधयन्ति [6] Pāṇini has also intended similarly in the *sūtra* अजाद्यतष्टाप् अजादीनाम् अकारान्तस्य च वाच्यं, यत् स्त्रीत्वं तत्र द्योत्ये टाप् स्यात्[7] also in *sūtra* ह्रस्वो नपुंसके प्रातिपदिकस्य क्लीबे प्रातिपदिकस्य अजन्तस्य ह्रस्वः स्यात् श्रियं पातीति श्रीपा-श्रीपं।[8]

Further in the explanation हस्तिकाः फलानोति फलेष्वपि-स्त्रियांवृत्तिः। शब्दानामेकार्थोपि लिंगवचनभेदः दाराः कलत्रं भार्येति।[9] the above view is justified.

Regarding gender the grammarians do not seem to be specific at all. According to *Mahābhāṣya* the gender has been described as स्तनकेशवती स्त्री स्याल्लोमशः पुरुषः स्मृतः।[10] This description caters to the distinctive features of the sexes as male and female. But the border is not drawn here. It falls and the walls come down when one finds that the words *vṛkṣa* or *khaṭvā* do not have these physical features (खट्वा वृक्षौ न सिद्ध्यतः)[11] and yet are explained in a specific gender. Similarly, one finds to one's surprise that one cannot resort to grammar for an explanation of sex, as far as words like ज्योत्स्ना, नदी etc., are concerned. The reason for this has to be traced elsewhere in culture or history. The crossing of

5. Quoted by Gadādhara in *Vyutpattivāda*.
6. *Vyutpattivāda* P. 118.
7. Pāṇini 4.1.4.
8. Ibid 1.2.47.
9. Durgasimha on the rule लोकोपचारात् ग्रहणसिद्धिः *Kalāpa* 23.
10. *Mahābhāṣya* Vol II. P. 196.
11. Ibid.

borders from the realm of sexual identity to the realm of cultural identity and of finding language that works for both, is a challenge.

An unorthodox approach can be traced with respect to the relation between human behaviour and the surrounding environment and the way language forms the expression of that relation. In such a process, language influences and determines both behaviour and perception. To be more precise some of the words of language become justifiers in the sense that only their association and invocation are needed to justify a given behaviour, or generate a certain perception. The seers of the Vedas invoke ऊषस् as the beautiful wife of the Sun god सूर्यो देवीमूषसं रोचमानां मर्यो न योषमभ्येति पश्चात्। [12] In another instance, the tenderness and the beauty which are supposed to be feminine qualities and are found in the flower as well, however do not denote the flower in feminine gender. The word *kusuma* is used in neuter gender, and the words *dārā* and *kalatra* are surely not used in feminine gender, even though they indicate the fair sex.

While trying to comprehend the many components of language that has developed into a system, we at times suffer from a sort of generalised confusion in our approach to understanding the same. In other words, there is no way of breaking the code of crisis, if we are not able to adequately codify our own understanding. We know in fact, how to describe and how to explain. What we seem to overlook is that describing and explaining do not amount to understanding the social and cultural complexities.

The confusion in our approach to understanding reveals itself in two ways (a) the utilisation of simplistic tendencies for the interpretation of socio-cultural complexities, and (b) the impoverishment of our language.

Quite apart from the formulae we may devise, the serious fact remains that while our societies have become increasingly complex our understanding of these have lacked a depth of

12. *Ṛgveda*

comprehension. Therefore, one turns to grammar in vain to explain the use of sex in the words like *jyotsnā* and *nadī*. The principle that accounts for such usages have to be traced in different contexts. Because we know that the parameters of a system can only be controlled from a system of higher complexity. In other words, through ordinary theories and models we cannot expect to understand the behaviour of the type of social and cultural nuances of which we are part. Hence the poetic abstraction and poetic fashions see tenderness, loveliness, grace and etiquetts both in the contexts of ज्योत्सना, नदी and women. There are many examples of this.

Without a proper understanding one may feel that this disproportionate importance granted to sex should ask for a radical reconceptualisation of the application of the concept of gender.

The fascination of a grammatic models of the language is that all their components are measurable. This is important to get a precise meaning. However, in a cultural context, this may not work wonder. Patañjali has clarified that in determining *laukika liṅga* we are guided by the popular usage in culture, and not by strict definition of sex. He has emphasised that the determination of genders from a logical and scientific point lies beyond the jurisdiction of grammar तस्मान्न वैयाकरणैः शक्यं लौकिकलिङ्गमास्थातुम्।[13]

One of the consequences of the simplicism and noncomprehension is the impoverishment of our language in particular the language regarding gender. A mechanistic thinking, especially when it comes to social systems finds hard to give a proper linguistic expression. In understanding gender we have made a lot of confusion, and therefore giving expression to gender through a formalistic language has become a hard nut to crack. It is not language that requires more words and concepts. Quite on the contrary, the characteristic of our poor language is that it has too many words behind which we knowingly or not, try to hide our ignorance.

13. *Mahābhāṣya* on the rule *Pāṇ* 3.1.3.

The challenge consists of finding the key expression or words behind which our voids of knowledge are to be found. Apprehending this position Patañjali has suggested two characteristic features of male and female especially on physiological ground. He comments that while the male can be the agent of production, the female can be the resort where something is developed संस्त्यान प्रसवौ लिङ्गमास्थेयौ स्वकृतान्ततः।[14] while that which is an intermediate stage of development and production is known as *napumsaka*. Thus, the popular conception of sex is of no use when applied to words like *vṛkṣa* and *khaṭvā*, खट्वा वृक्षौ न सिध्यतः। [15] Further Patañjali clarifies that these criteria are not universally applicable since production and development are *guṇas* and are not only related to human agents but other agencies too, both male and female become the *āśraya*, or substratum for these *guṇas*, कस्य पुनः स्त्यानं स्त्री प्रवृत्तिर्वा पुमान्? गुणानाम्।[16]

Although the arguments of the previous paragraph may seem justifiable the fundamental question that arises is how to decide the sex. Patañjali says that it depends on the desire of the speaker, for instance, when development or growth is meant to be implied we take it as female and so on.[17] What should be stressed here is that conventional research goes beyond describing and explaining the concept of gender. Gadādhara is of the opinion that the grammatical use of *strītva* does not necessarily bring the idea of female gender, as already pointed out in the examples of *khaṭvā* and *vṛkṣa*. Also, the word *devatā* though it means both male and female deity is generally used in feminine gender, प्राणित्वेन विशेषणेऽपि देवतादौ व्यभिचारात्।[18] Gadādhara does not agree with the view that *stripratyayas* are only indicative (*dyotaka*). He says that they are expressive of *strītva*, and that is why *liṅga* has been mentioned

---

14. Ibid. Vol II P.197.
15. Ibid.
16. Ibid.
17. विवक्षातः। संस्त्यानविवक्षायां स्त्री प्रसवविवक्षायां पुमानुभयोरविवक्षायां नपुंसकम्।
18. *Vyutpattivāda* P.118.

as distinct from *prātipadikārtha* (in the rule *Paṇ* 2.30.66). He further adds that *strī pratyayas* in words like *khaṭvā*, *aṭavī* and *devatā* are absurd. पुंस्त्वस्य प्रातिपदिकार्थत्वे स्त्रीत्वार्थकत्वे गौरवात्। लाघवेनाल्पीयसां स्त्रीप्रत्ययानां तदर्थकत्वकल्पनौचित्यात्।

These discussions mentioned above open the possibility for the design of new indicators of social phenomena. It shows that the knowledge system has an inbuilt capacity to learn from experience, both our own and others. As a consequence of this, a system that satisfies this attribute cannot have an authoritarian structure of understanding gender, where information flows only in one direction. This knowledge system essentially manifests a direct democracy, where gender is not a weapon of discrimination.

---

19. Ibid. P.119.

SEMANTIC PROBLEMS OF NUMBER

N.V.P UNITHIRI

IN SANSKRIT language there are three numbers (*vacana*), namely, (i) singular in the sense of unity[1], (ii) dual denoting duality[2] and (iii) plural expressing multiety[3]. It is to be noticed that the dual number is peculiar to Sanskrit and it is the only Indo-European language to maintain the system of three numbers through out its history.[4] In Pāṇini's treatment of numbers, wa can see a few semantic problems which are presented in brief in this paper.

I. Generally a singular denotes a person, place or thing in one number. Thus, *vṛkṣaḥ* means a tree. But, in usage, a few exceptions for this can be seen. The word *dārāḥ* has the form of masculine plural, but, having the meaning 'wife', it is always applied to female singular. Similarly. *āpaḥ*[6] means 'water'. It is feminine plural in form, but neutral singular in sense. *Gṛhāḥ*' *varṣāḥ* and *sikatāḥ* are other examples. *Gṛhāḥ*' (masculine plural in form) means 'a house' or 'a wife' (neutral/feminine singular). *Varṣāḥ*[8] (feminine plural in form) means the rainy season or the rains (neutral singular/plural). *Sikatāḥ*[9] (feminine plural in form) means sandy soil or sand (neutral singular). These exceptions are covered by Pāṇini in his *Aṣṭādhyāyīsūtra* I.2.53.[10] According to this, the concord of gender and number of primitive and derivative nouns, and of attributes and substantives, need not be taught or approved because it has the authority of conventional term or idiom.

II. The name of a country is generally used in masculine plural, though by sense it is neutral singular. Thus, *śirīṣāḥ* means

a village nearby *śirīṣa* trees. The word retains the masculine gender and plural number of the original word, though it denotes a village which is in singular number and neuter gender. Similar are the forms like *pañcālāḥ, kuravaḥ, aṅgāḥ, vaṅgāḥ* and *kaliṅgāḥ. Pañcālās* are a class of *kṣatriyas* and thus the word is in masculine plural. The country in which they live is also called *Pañcālās*, and the word retains the gender and number of the original one. *Kuravaḥ* etc., are also like this. Pāṇini legitimises these forms making the rule, I.2.51.[11] As per this rule, when a *taddhita* affix is elided by using the word *lup*, then the gender and number of the derivative word agree with those of the original one. Here the *lup* is according to IV. 2.81[12], lup replaces when designating an inhabited country. According to I. 2.51, this replacement does not affect either gender or number.

In this connection, mention may be made of another rule, I.2.52.[13] Thus, of adjectives the gender and number are the same as of the word formed by *lup*-elision of the *taddhita* and only in the case when they do not express *jāti*, species. Examples - *pañcālāḥ ramaṇīyā bahvannāḥ bahukṣīraghṛtāḥ bahumālyaphalāḥ, godau ramaṇīyau*. But if it is used as a *jāti*, then this agreement will not be there. Examples— *pañcālāḥ janapadaḥ godau grāmaḥ*. This is applicable to all the attributes. Thus we have *pañcālāḥ janapado ramaṇīyo bahvannaḥ* etc.

According to the *vārtika, khalatikādiṣu vacanam, khalatika* etc., retain their number only as *khalatikam vanāni* (forests not far away from the *khalatika* mountain) Here the *lup* is ordained by IV.2.82.[14]

III. The name of a *jāti* or species always denotes one because it is a collective noun and naturally it takes singular number. Thus. *Brāhmaṇaḥ pūjyaḥ* means Brāhmaṇas are to be worshipped though literally its meaning is 'a Brāhmaṇa is to be worshipped'. In this case the plural is optionally employed by Pāṇini in the aphorism, I. 2.58.[15] So, the expression *brāhmaṇāḥ pūjyāḥ* is also correct. This rule is applicable to the concerned adjectives too.

Thus we have *sampanno yavaḥ* or *sampannāḥ yavāḥ* (Full grown barley).

Here is an exception when a class noun is qualified by a numeral adjective, as *eko vrīhiḥ sampannaḥ subhikṣam karoti.*

IV. In the sense of 'I speak' the usual expression is '*aham bravīmi*', and of 'we two speak', *āvām brūvaḥ*' In these senses, Pāṇini ordains that the plural of the pronoun *asmad* (I) can be used optionally. Thus we have *aham bravīmi* or *vayam brūmaḥ* (I speak); *āvām brūvaḥ* or *vayam brūmaḥ* (We two speak). Pāṇini's formula in regard to this is I. 2.59[16] which means: the plural of the pronoun *asmad* (I) is used optionally, though the sense requires a singular or dual number.

According to the *vārttika, saviśeṣaṇasya pratiṣedhaḥ*, there is prohibition when the pronoun of the first person is qualified by an attribute as *paṭur aham bravīmi* (I, *paṭu*, clever, am speaking).

V. There are two pairs of stars, namely, *phalgunī*, and *proṣṭhapadā*. Their logical number is dual as *pūrve phalgunyau* and *pūrve proṣṭhapade*. But in the same sense there are usages in plural also like *pūrvāḥ phalgunyaḥ* and *pūrvāḥ proṣṭhapadāḥ*. To account this Pāṇini composed the aphorism, 2.60[17] according to which the dual *phalgunī* and *proṣṭhapadā*, when signifying asterisms, also connotes optionally plural. If *phalgunī* and *proṣṭhapadā* are not names of stars, they take their proper number only, as *phalgunyau māṇavike* (two girls born under the asterism of *phalgunī*. In this phrase, the word *phalgunyau* does not refer to the asterism directly.

By two phormulae, I. 2.61 and I.2.62[18] Pāṇini legitimises the Vedic usages of *punarvasu* and *viśākhā* in singular number, as *punarvasur nakṣatram* and *viśākhā nakṣatram* both of which connote a dual . Usages of these words in dual too occur in the Vedas. Hence, these *Pāṇini sūtras* ordain the singular only optionally.

VI. The expressions like *dvayam, dvitayam, trayam, tritayam, catuṣṭayam* and *pañcatayam* having the meaning of dual and plural numbers take the forms of singular only. In order to make these

usages grammatically correct Pāṇini formulates the aphorisms, V. 2.42 and V. 2.43[19] according to which the affix *tayap* (*taya*) comes after a numeral in the sense of 'that where of the parts are so many' and the affix *ayac* (*aya*) is optionally the substitute of *tayap* after the words *dvi* and *tri*. *Dvau avayavau asya, dvayam* or *dvitayam, trayaḥ/catvāraḥ/pañca avayavāḥ asya, trayam* or *tritayam, catuṣṭayam* and *pañcatayam*.

VII. *Ubha* is a pronoun which is used only in dual,[20] *ubhaya* also is a pronoun having the same meaning; but grammarians differ so far as its number is concerned. According to the *vārttika*, *ubhayo' nyatra*, and Kaiyaṭa, the word *ubhaya* does not take the dual number. [21] But Haradatta maintains that it does have the form in dual too. [22] Pāṇini's rule relating to this problem is V. 2.44[23] which means : After the word *ubha*, *ayac* is always the substitute for *tayap*, having the acute accent on its first syllable.

VIII. In connection with compound words also we have a lot of semantic problems. *Pañcagavam* means 'an aggregate of five cows'. Thus, though it has a sense of many, it is in singular number expressing the sense of unity. According to grammarians this compound falls in the *samāhāra dvigu* group. Pāṇini's aphorism regarding this is II. 4.1[24], according to which the compound *dvigu*, i.e. *samāhāra dvigu*, is singular in number.

IX. Similar is the case with some of the *samāhāra dvandva* compound words. Pāṇini has *sūtra*, II. 4.2 [25], which means a *dvandva* compound too is singular in number, when it is compounded of words denoting members of the animal body, members of a band of players singers of dancers, and component parts of an army. Example— *pāṇipādam* (hands and feet), *śirogrīvam* (head and neck), *mārdaṅgikapāṇavikam* (a group of players on *mṛdaṅga* and *paṇava*, two kinds of drums), *rathikāśvāroham* (an army unit of charioteers and cavaliers.)

X. According to Pāṇini, II 4.3 [26], a *dvandva* compound of words signifying persons belonging to the different Vedic schools takes singular number when the meaning is that of repetition. This aggregate is used with the aorist of the roots *sthā* and *iṇ* only,

according to the *vārttika*, *sthenor luṅīti vaktavyam*. Thus we have *udagāt kaṭhakālāpam* (transmitters of *Kaṭha* and *Kalāpa* branches of Vedic schools arose) and *Pratyaṣṭhāt kaṭhakauthumam* (*Kaṭha* and *Kauthuma* established again.) When demonstration for the first time is meant, the expressions will be *udaguḥ kaṭhakālāpāḥ* and *Pratyaṣṭhuḥ kaṭhakauthumāḥ*. If the verb is other than aorist the expression will not be in singular. Example- *udayanti kaṭhakālāpāḥ*.

As per Pāṇini's rule, II. 4.4[27] a *dvanda* compound of words denoting Yajurveda sacrifices is singular, provided that they are never used in the neuter gender. *Arkāśvamedham* (*arka* and *āśvamedha* sacrifices) is an example. In the case of non-Yajurveda sacrifices, singular will not be there. Example— *iṣuvajrau* (*iṣu* and *vajra* ceremonies). These are Sāmaveda sacrifices. If the sacrifices are of neuter gender, the compound does not take singular number. Example—*rājasūyavājapeye* (*rājasūya* and *vājapeya* sacrifices). Though *darśa* and *paurṇamāsa* are Yajurveda ceremonies, they are not Soma ceremonies. Since the word *kratu* is a technical term applying only to Soma sacrifices, this rule is not applicable to the compound of these two ceremonies. Thus we have the compound *darśapūṇamāsau* in dual only.

By another rule, II. 4.5[28], Pāṇini ordains singular for a *dvandva* compound when the constituent members denote the names of persons derived from the subjects studied by them which are not remote from each other. Thus we have *padakakramakam* (an adept in *padapāṭha* and an adept in *kramapāṭha* of Vedic recitation). But, *pitāputrau* (father and son), because these are names not so derived, and *yājñikavaiyākaraṇau* (a performer of sacrifices and a grammarian), because these are experts in unrelated subjects.

XI. A *dvandva* compound, the components of which are signifying species (*jāti*) of inanimate beings takes singular number according to Pāṇini, II 4.6.[29] Example— *dhānāśaṣkuli* (fried rice and barley cake). But *viṭśūdrāḥ* (Vaiśyas and Śūdras),

since the component words are names of animate beings, *rūparasau* (colour and taste) and *gamanākuñcane* (going and bending), since these are *jāti* names of qualities and actions, not of substances.

XII. A *samāhāra dvandva* compound of words of different genders, denoting names of rivers and countries but not towns, is in singular number according to Pāṇini, II. 4.7.[30] Thus we have *udhyaśca irāvatī ca udhyerāvati, gaṅgā ca śoṇaśca gaṅgāśoṇam* (River names), *kuravaśca kurukṣetram ca kurukurukṣetram* (country names). But *gaṅgāyamune* and *madrakekayāḥ*, because both the component words in these compounds are in same gender. Since there is the expression 'not towns' in the *sūtra*, we have *jāmbavaśālūkinyau* only—*jāmbava* is a city and *śālūkinī* is a village. The prohibition applies to villages and towns (*grāma*) only; not to cities (*nagara*). Hence, *mathurāpāṭalīputram* (the cities of Mathurā and Pāṭalīputra).

XIII. The usages like *yūkālikṣam* (louse and nit) are in vogue. This is according to Pāṇini's rule, II. 4.8[31] which means that a *samāhāra dvandva* compound of words denoting small animals takes singular number.

XIV. The expressions like *ahinakulam* (snake and mongoose), *govyāghram* (cow and tiger) and *kākolūkam* (crow and owl) are famous. Eventhough the meaning of them is plural, they take only singular number. To legitimise these usages, Pāṇini made the formula, II. 4.9[32] , according to which a *dvandva* compound of words signifying those animals of permanent enmity takes the form of singular number. Since the enmity of *devas* and *asuras* is not permanent, this rule does not apply to the compound, *devāsurāḥ*.

XV. According to Pāṇini's aphorism, II. 4.10[33] *dvandva* compound of words denoting those classes of Śūdras who have not been expelled from the communion of higher classes is singular. Example—*takṣāyaskāram* (carpenter and blacksmith), But since *caṇḍālas* and *mṛtapas* are expelled from the communion,

this rule does not apply to the compound of these two words. Thus we have the expression—*caṇḍālamṛtapāḥ*.

XVI. The usage like *gavāśvam* (cows and horses) and *gavāvikam* (goats and rams) are legitimised by Pāṇini making the rule, II. 4.11.[34]

XVII. A *dvandva* compound of words being the names of (i) trees, (ii) wild animals, (iii) grass, (iv) corn, (v) condiment, (vi) domestic beasts and (vii) birds, and the compounds (i) *aśvabaḍava*, (ii) *pūrvāpara* and (iii) *adharottara* are optionally singular, according to the Pāṇinisūtra, II. 4.12.[35] Thus we have *plakṣanyagrodham* or --*dhāḥ* (*plakṣa* and *nyagrodha* trees). *rurupṛṣatam* or ...*te* (Ruru deer and spotted antelope), *kuśakāśam* or-- *śāḥ* (*kuśa* grass and *kāśa* grass), *vrīhiyavam* or-*vāḥ* (rice and barley), *dadhighṛtam* or-- *te* (curd and butter), *gomahiṣam* or--*ṣāḥ* (cow and buffalo), *śukabakam* or --*kāḥ* (parrot and crane birds), *aśvabaḍavam* or --*vāḥ* (horse and mare), *pūrvāparam* or -- *re* (the first and the last) and *adharottaram* or -- *re* (the upper and the lower).

XVIII. Pāṇini in the *sūtra*, II. 4.13.[36] ordains that a *dvandva* compound of words of contrary significations, but not being the names of material substances, is optionally singular. Example—*śītoṣṇam* or --*ṣṇe* (cold and heat), *sukhaduḥkham* or - *khe* (pleasure and pain) and *jīvitamaraṇam* --*ṇe* (life and death). In the case of the names of substances, this option is not applicable. Thus we have *śītoṣṇe udake* (cold and warm waters) etc.

XIX. According to another Pāṇini *sūtra*, II. 4.16,[37] a *dvandva* compound denoting an approximate number of material objects optionally take singular number. Example—*upadaśa*, *dantoṣṭham* or - *dantoṣṭhāḥ* (nearly ten, i.e. nine or eleven, sets of teeth and lips).

XX. In the case of the *dvandva* compounds of the stars Pāṇini made another formula too, namely, I. 2.63[38] which means that in the *dvandva* compounds of the stars *tiṣya* and *punarvasū*, the final compound is always in the dual. *Tiṣya* and *punarvasū* are two

groups of stars. *Tisyaś ca punarvasū ca tiṣyapunarvasū*. Athough the meaning of this is plural, the compound takes dual number only. If those words do not connote stars, this rule does not apply to the compound of them. Example—*tiṣyapunarvasavo māṇavakāḥ* (Boys called *tiṣya* and *punarvasu-s*).

It is hoped that the points discussed so far in the foregoing passages will present a general picture of semantic problems in Pāṇini's grammar in regard to number.

Notes

1., 2. द्व्येकयोर्द्विवचनैकवचने (I.4.22)Also I. 4.102, तान्येक-वचनद्विवचनबहुवचनान्येकशः and I. 4.103, सुपः

3. बहुषु बहुवचनम् (I. 4.21), Also vide I.4.102,103.

4. *Aṣṭādhyāyī* of Pāṇini, Tr. S.M.Katre, Motilal Banarsidass, Delhi. P.82

5. एते वयममी दाराः कन्येयं कुलजीवितम् (*Kumārasambhava*, VI.63)

6. अप एव ससर्जादौ तासु बीजमवासृजत् (*Manusmṛti*, I.8)

7. तत्रागारं धनपतिगृहानुत्तरेणास्मदीयम् (Meghadūt, 75)

8. ग्रीष्मे पञ्चाग्निमध्यस्थो वर्षासु स्थण्डिलेशयः (*Yājñavalkyasmṛti*, II.5)

9. लभेत सिकतासु तैलमपि यत्नतः पीडयन् (*Bhartṛhariśatakatrayaṃ* II. 5)

10. तदशिष्यं संज्ञाप्रमाणत्वात्।

11. लुपि युक्तवद्व्यक्तिवचने।

12. जनपदे लुप्।

13. विशेषणानां चाजातेः।

14. वरणादिभ्यश्च।

15. जात्याख्यायामेकस्मिन् बहुवचनमन्यतरस्याम्।

16. अस्मदो द्वयोश्च।

17. फल्गुनीप्रोष्ठपदानां च नक्षत्रे।

18. छन्दसि पुनर्वस्वोरेकवचनम्, विशाखयोश्च।

19. संख्याया अवयवे तयप्; द्वित्रिभ्यां तयस्यायज्वा।

20. उभौ तौ न विजानीत : (*Bhagavadgīta*, II. 19). vide *Siddhāntakaumudi* : उभशब्दो द्वित्वविशिष्टस्य वाचकः अत एव नित्यं द्विवचनान्तः (Vol. 1 pp.138-39)

21. अन्यत्र द्विवचनपरत्वाभावे (*Siddhāntakaumudi*, Vol I, P.139)

Examples for singular—

उभयमानशिरे वसुधाधिपाः (*Raghuvaṃśa*, IX.9)

उभयीं सिद्धिमुभाववापतुः (VIII. 23)

उभयो (उभौ पीतलोहितौ अवयवौ यस्य)मणिः।

Examples for plural—

उभये (उभौ समुदायस्यावयवौ-एको देवानां राशिः अपरो मनुष्याणां राशिःयेषाम्) देवमनुष्याः।

Bālamanoramā explains this as follows: 'मणेरवयविनः एकत्वात् उभयः इत्येकवचनम्। उभयश्च उभयश्च इत्येवं द्व्यवयवारब्धत्र्यादिमणिविवक्षायां तु बहुवचनम् उभये मणयः इति। उभयश्च इति द्व्यवयवारब्धद्विमणिविवक्षायां उभयौ मणि इति द्विवचनं तु न भवति, उभयोऽन्यत्र इत्युदाहृतवार्तिके उभयशब्दस्य द्विवचनान्तादन्यत्रैव प्रयोगविध्यवगमात्। न च तत्र वार्तिके स्वार्थिकायजन्तस्यैवोभयशब्दस्य ग्रहणं स्वार्थिकायजन्तोभयशब्दोपक्रमेणैव तद्वार्तिकप्रवृत्तेरिति वाच्यम्, एतद्वार्तिकव्याख्यावसरे उभयो मणिः, उभये देवमनुष्याः इति भाष्ये उदाहृतत्वेन तयप्समानार्थका यजन्तस्यापि तत्र ग्रहणावगमात्। एतदेवाभिप्रेत्य 'तद्धितश्चासर्वविभक्तिः' (I. 1.38) इत्यव्ययत्वमुभयशब्दस्य द्विवचनाभावेनासर्वविभक्तित्वेऽपि न भवति, तसिलादयः प्राक्पाशपः रास्प्रभृतयः प्राक्समासान्तेभ्यः, अम् आम्, कृत्वोऽर्थाः तसिवती, नानाञौ इति परिगणिततत्वादिति कैयटेनोक्तम्... एवं च उभयः उभये उभयम् उभयान्... इत्येव रूपाणि। न तु उभयौ इत्यादिद्विवचनान्तप्रयोगः इति सिद्धं भवति। (Vol I, p.139) This is the explanation of the observation in *Siddhāntakaumudī*: 'उभयशब्दस्य द्विवचनं नास्तीति कैयटः (Ibid, p.19) Also see *Pradīpa* on *Mahābhāṣya*, p.354.

22. Vide *Siddhāntakaumudī*, p.139 : 'अस्तीति हरदत्तः'। In *Padamañjarī*, Haradatta writes: 'विंशत्यादयस्तु कृतेकशेषा द्विवचन-बहुवचनान्ता अपि भवन्तीति नासर्वविभक्तयः। एवं द्वयत्रयोभयशब्दा अयजन्ताः।' (*Kāśikā* with *Nyāsa* and *Padamañjari*, Tara Book Agency, Varanasi, 1986. Vol.I. p.134)

This argument is elaborated as follows: 'उभशब्दादत्यन्त स्वार्थिकायचो द्विवचनपरत्वाभावे एव प्रवृत्तावपि 'संख्याया अवयवे तयप्' इति सूत्रेण उभशब्दात्

तयप्प्रत्यये तत्स्थाने 'उभादुदात्तो नित्यम्' इति सूत्रविहितायचो द्विवचने परे ततोऽन्यत्र वा प्रवृत्तौ बाधकाभावने अयजादेशे स्थानिवद्भावेन तद्धितान्ततया प्रातिपदिकत्वे एकवचनबहुवचनवद् द्विवचनोत्पत्तेः प्रतिबन्धकाभावाद् उभयशब्दस्य द्विवचनमस्ति। (*Siddhāntakaumudī* with *Bālamanoramā*, *Paṅktilekhana prakāra*, p.19)

23. उभादुदात्तो नित्यम्।
24. द्विगुरेकवचनम्।
25. द्वन्द्वश्च प्राणितूर्यसेनाङ्गानाम्।
26. अनुवादे चरणानाम्।
27. अध्वर्युक्रतुरनपुंसकम्।
28. अध्ययनतोऽविप्रकृष्टाख्यानम्।
29. जातिरप्राणिनाम्।
30. विशिष्टलिङ्गो नदीदेशोऽग्रामाः।
31. क्षुद्रजन्तवः।
32. येषां च विरोधः शाश्वतिकः ।
33. शूद्राणामनिरवसितानाम्।
34. गवाश्वप्रभृतीनि च।
35. विभाषावृक्षमृगतृणधान्यव्यञ्जनपशुशकुन्यश्वबडवपूर्वापराधरोत्तराणाम्।
36. विप्रतिषिद्धं चानधिकरणवाचि।
37. विभाषा समीपे।
38. तिष्यपुनर्वस्वोर्नक्षत्रद्वन्द्वे बहुवचनस्य द्विवचनं नित्यम्।

GRAMMATICAL NUMBER AND NUMERALS IN PĀṆINI

G. Gangadharan Nair

The word 'number' is used here in two meanings (1) the grammatical number (*vacana*), viz. singular, dual and plural and (2) the notional device for counting, viz. *eka* (one), *dvi* (two), *tri* (three), *catur* (four) etc. Grammarians have the necessity of dealing with the former as part of their discipline. The latter can be left to be learned from actual usages prevalent among the people (*vyavahāra*). However, a grammarian, who teaches the words of a language by an artificial method of generating them with bases and affixes, has to justify their meanings in relation to their structure and usage. Hence Pāṇini and his followers had to face some semantic problems in the case of numbers (numerals) as in the case of other types of words. As they accepted the validity of words on the basis of established usages[1] they had to address the problems to support the meanings of the numbers and their derivatives as in the usages.

Grammatical Number

Pāṇini lays down two general rules about the use of grammatical numbers - (1) *dvyekayor dvivacanaikavacane*[2] and (2) *bahuṣu bahuvacanam*.[3] Accordingly, singular number of a word is used if the word refers to a single object. Dual number added to a word indicates that there are two objects referred to by the word. The plural number indicates that there are many (more than two) objects. Thus *vṛkṣaḥ* = one tree, *vṛkṣau* = two trees, *vṛkṣāḥ* = many trees. Now, let us see a few instances where

semantic problems occur and the solutions given by the Pāṇinian school of grammar.

1. Dārāḥ

A wife is denoted by the word *dārāḥ* in Sanskrit. Though there are other words in singular number and feminine gender in Sanskrit for 'wife' this word which is in masculine gender and in the plural is often used to refer to a wife with respect. How is it that the plural indicates a single person as in *rāmasya dārāḥ sītā*? The explanation given by the grammarian is that the multiplicity of the limbs is superimposed on the woman and the plural number is used.[4] The idea really has a plural significance as every limb of a wife is considered a wife. Nāgeśabhaṭṭa in his *Laghumañjūṣā* further clarifies that a wife is endearingly called *dārāḥ* because the affection causes the husband to perceive her every limb as a wife. Here, in this explanation another problem arises: How does a person speak of another's wife as *dārāḥ*? Here it may be said that primarily the word originated as an endearing word of a husband about his wife. Later, in the secondary use of the word the context was expanded to refer to anybody's wife. In the etymology of the word also there is a problem. If it is derived from the root *dṛ* to break, *dārayanti iti dārāḥ*, then the word may mean a quarrelsome wife who breaks her husband. Here the grammarian offers another etymology by deriving the word from the root *(ā) dṛ* to honour, *driyante iti dārāḥ*. It means that the word stands for a wife honoured by her husband.

2. Vayaṃ tu brūmaḥ

This is a sentence which occurs many times in the *Mahābhāṣya* of Patañjali. It means 'we do say' and is an authoritarian statement of a single man, Patañjali, wherein he refers to himself as *vayam* (we) instead of the singular *aham* (I). This statement is quoted here as a representative of such statements made by kings, preceptors, elders, etc., where the plural is used to refer to oneself to assert the speaker's authority. Pāṇini

prescribed a rule *asmado dvayośca* to uphold the validity of such usages. According to that rule the plural can be optionally used for the singular and dual forms of the word *asmad*. (*aham* is the nominative singular and *vayam* the nominative plural of *asmad*). It is not unusual that a person in high self-esteem considers himself as equal to many.

3. *Yūyaṃ guravaḥ samāgatāḥ*

When a preceptor has come to the residence of a disciple, the disciple may address him *yūyaṃ guravaḥ samāgatāḥ* (You, the preceptors, have come) instead of the singular (*tvaṃ guruḥ samāgataḥ* thou, the preceptor, hath come). In Sanskrit there is no objection to use the singular expression. But we hear such expressions in the plural number. *Kāśikā* introduces its own *vārttika* to handle this semantic problem —*yuṣmadi gurau.*[6] It means that if *yuṣmad* refers to one's preceptor, the plural number can be employed. Another usual explanation given by grammarians is that to express respect to any person, he/she may be referred to in the plural. e.g. *ācāryāḥ śaṅkarācāryāḥ*.

4. *Sampannovrīhiḥ, sampannāḥ vrīhayaḥ*

When one sees a good paddy field, one may say: *sampanno vrīhiḥ* (the paddy plant has grown well) though there are thousands of paddy plants. The situation warrants a usage in the plural number. The explanation for the singular *sampanno vrīhiḥ* is that here the word *vrīhi* denotes a class (*jāti*) of the plants and not the plants only. Since the class is one, singular use is proper. In other languages also there are such usages. e.g. Man is a social animal (English). The plural expression *sampannāh vrīhayaḥ* is also in popular use. Since the class is intended, this plural usage needs explanation. Here Paṇini gives the rule: *jātyākhyāyām ekasmin bahuvacanamanyatarasyām*. According to this rule, if a class is denoted by a word the plural can be used optionally to express the one. Another explanation is that a word indicates both individual (*vyakti*) and class (*jāti*). If the speaker intends to express the class by a word he employs that word in singular. If he intends

to convey the idea of the individuals, he employs the word in any of the three numbers depending on the count. If he wants to express the idea of many individuals, he pronounces the plural. Thus taking the individual plants in the paddy field, one can correctly say *sampannāḥ vrīhayaḥ* (the paddy plants have grown well).

5. *Vedāḥ pramāṇam*

There is the convention in Sanskrit that the qualified and the qualifying words should be in the same number. Here, *Vedāḥ*, the qualified noun, is in the plural number and the adjective *pramāṇam* is in the singular. So, there is a doubt about its meaning. Here it is stated that if the speaker intends to express a number in the adjective different from the number of the qualified noun, then there may be a difference in numbers of the two.[7] Thus the speaker conveys the idea that all the Vedas together are one authority. If they are severally authority, then the adjective will be *pramāṇāni*. Similar is the statement (*śakti, nipuṇatā, abhyāśa*) *iti trayaḥ samuditā hetuḥ* (the three together form the cause).

6. *Pañcālāḥ (janapadaḥ)*

The country (*janapadaḥ*) where Pāñcālas are settled is called *pañcālāḥ*. It is in the plural. How is it that the word in plural indicates a single country. According to Pāṇini, a *taddhita* suffix prescribed by the rule *tasya nivāsaḥ*[8] is elided by the rule *janapade lup*.[9] The rule *lupi yuktavad vyaktivacane*[10] instructs that when a suffix is elided by the term *lup*, the derived word will have the same number and gender as the base. Thus the members of a warrior class and the country inhabited by them are both called *pañcālāḥ (pañcālānām nivāso janapadaḥ pañcālāḥ)*. Then Pāṇini makes a review of what he has taught and states that there is no need of prescribing a rule like *lupi yuktavad....*, for people take established usages as authority in such cases. (*tadaśiṣyam saṃjñāpramāṇatvāt.*[11]) He further states that there is no need of prescribing even *lup* (the special kind of elision) to derive the word, for people understand the name of the country the same as

that of the warriors inhabiting it without being aware of the derivation.[12]

7. Pūrvāḥ phālgunyaḥ, pūrvāḥ proṣṭhapadāḥ

These are two examples where two objects are indicated by the plural number. *Pūrvaphalgunīs* are two stars and there is the dual number in the usage *pūrve phalgunyau*. Since the alternative usage with the plural, *pūrvāḥ phālgunyah* is also found, the semantic value two of the plural suffix morpheme requires the grammarian's stamp approving the popular usage. Similar is the case with the usage *purvāḥ proṣṭhapadāḥ*. Pāṇini authenticates the optional plural by his rule *phalgunīproṣṭhapadānaṃca nakṣatre.*[13]

8. Uditau tiṣyapunarvasū

Tiṣya is one star. *Punarvasus* are two stars. When the two words are compounded in *dvandva*, the word should get a plural suffix to show that there are three stars. However, the compound word is in the dual number. To solve this problem, the grammarian accepts the compound in the common speech by promulgating the rule *tiṣyapunarvasvor nakṣatradvandve bahuvacanasya dvivacanaṃ nityam*[14] .

9. Dṛṣṭvā tatra kapī rāmalakṣmaṇau hṛṣitau vane

In the dual number the determination of the semantic value of the suffix morpheme is often impossible without the knowledge of context or some indicative word. In the above example *kapī* and *rāmalakṣmaṇau* are two words in dual number. As the nominative case and accusative case have the same morpheme in the dual number, we are unable to decide whether the word *kapī* is in the nominative or in the accusative case. Similar is the case with *rāmalakṣmaṇau*. The sentence can mean either 'the two monkeys, seeing Rāma and Lakṣmaṇa there in the forest, became happy' or 'Rāma and Lakṣmaṇa, seeing the two monkeys there in the forest, became happy'. Grammarians attach much importance to the context in the matter of verbal knowledge. In modern Semantics

also, it is accepted that the reference of a word depends on the circumstance in which it is used.

10. Bālābhyām pācayatyannam

Since the instrumental, dative and ablative cases have the same morpheme in the dual number, sometimes it is difficult to find out the exact meaning. The above sentence is a case where we are unable to determine the semantic value of the dual suffix without the help of an understanding of the context. It may mean either '(he) gets the food cooked by the two boys' or '(he) makes somebody cook for the two boys'. Here the confusion is whether *bālābhyām* is instrumental or dative.

11. Vane gatā vānarāste dvidhāsaṅgham vidhāya ca

This is another example where the knowledge of context alone will help in solving the semantic problem. The form *vane* creates a doubt in our mind– is it the accusative dual of *vana* or the locative singular. If it is the former, the sentence means: 'And having formed two groups, those monkeys went to two forests'. Otherwise it means: 'And having formed two groups, those monkeys travelled in the forest'.

12. Godau (grāmaḥ)

There are two lakes Godas, called *godau* in dual number in Sanskrit. A hamlet which is situated not far from these lakes is also known as *godau*. Here the dual form expresses a singular object. Pāṇini authenticates this form by dropping the suffix prescribed by the rule *adūrabhavaśca.*[15] This is a case similar to that of *pāñcālāḥ*.

Numerals

Semantic thoughts in the line of the Pāṇinian grammar on the counting numbers can be seen in the 'Saṃkhyā Samuddeśa' of *Vākyapadīya*. The grammarian philosopher, Bhartṛhari, has raised the thoughts to philosophical heights by citing and subjecting to critical examination the opinions of scholars in different schools

of thoughts. He states that every object has number and distinctions of unity and diversity are based on number.[16] The first number (*ekatva*) is the source of the second number, etc. Without it, the other numbers cannot come into existences.[17] Numerals upto *daśa* (to be precise, including numbers ending in *daśa* like *ekādaśa*) express number only.[18] From *viṃśāti* onwards the number is a collection of counts relating to the things counted and indicates the difference of one collection from another collection. The word *ekaviṃśati*, though seems a compound of *eka* and *viṃśati*, is not actually of two parts. It also denotes one collection of twenty-one counted things. Since numbers from *viṃśati* onwards are a collection each, singular number is used with each such number. If similar collections occur more than one, dual and plural numbers maybe used depending on the duality or plurality of the collections. Thus *viṃśati* is two collections having twenty counted members each, and *viṃśatayaḥ*, more than two such collections.

Morpho-semantic ideas about numbers entering into compounds are taught in the 'Vṛtti Samuddeśa' of *Vākyapadīya*.

Semantic change of numbers

Though *viṃśati, triṃsat*, etc., are stated to be collections, they are also used as co-referential (*samānādhikaraṇa*) with counted things. However, the grammatical number of these words is singular. e.g. *viṃśatiḥ gāvaḥ*. Here the identification of the number with the counted objects in spite of the difference in grammatical number is accounted for by the grammarians by stating that is due to the characteristics of the word (*sabdasvābhāvyāt*).

Pāṇini himself gives the meanings of some derivatives from numbers. e.g. *saṃkhyāyā vidhārthe dhā*,[21] *adhikaraṇavicāle ca*,[22] *ekaddho dhyamuñanyatarasyām*,[23] *ekādākiniccāsahāye*,[24] *tasya pūraṇe ḍaṭ*.[25]

Dvitīya and *tṛtīya* are ordinal numbers formed from *dvi* and *tri* by the suffix *tīya*. These words mean second and third

respectively. However, these words are used in the sense of one of two parts and one third respectively. Pāṇini derives the word with no change of form but with accentual variation by the rule *pūraṇād bhāge tīyādan.*[26] *Dvitīyabhikṣā* is not the second alms, but one half ($^1/_2$) of the alms.[27]

The ordinal numbers *pañcama* (fifth), *saptama* (seventh), etc., are also used in the sense of one fifth, one seventh etc. Pāṇini establishes their validity by his rule *prāgekādaśabhyo cchandasi.* The ordinal numbers *ṣaṣṭha* and *aṣṭama* are similarly used in the sense of one sixth and one eighth. Along with these there are the alternative forms *ṣaṣṭha* and *aṣṭama*. For them Pāṇini gives the rule *ṣaṣṭhāṣṭamābhyām ña ca.*[29]

Ardha is a number meaning one of two equal divisions, i.e., half, if it is in the *napuāṃsaka liṅga*. *Ardhapippalī* is a compound meaning exact half of (a certain quantity of) long pepper. *Pippalyardha* means 'a part of a quantity of long pepper' (not exactly half). The semantic difference is clearly pointed out by the *sūtra, ardhaṃ napuṃsakam.*[30]

From what has already been described, it is clear that Pāṇini and his followers paid much attention to the semantic problems of numbers.

References

(P. = *Aṣṭādhyāyī* of Pāṇini, *Va.* = *Vākyapadīya*)

1. Vide सिद्धे शब्दार्थसम्बन्धे लोकतोऽर्थप्रयुक्ते शब्दप्रयोगे शास्त्रेण धर्मनियमो यथा लौकिकवैदिकेषु ॥ *Vārttika* 1 and *Mahābhāṣya* thereon.
2. P. I. iv. 22
3. P. I. iv. 21
4. Vide *Bālamanoramā* on P.I. iv. 21
5. P. I. ii. 59
6. *Kāśikā* on P. I. ii. 59
7. Vide *Vyutpattivāda* beginning.
8. P. IV. ii. 69

9. P. IV. ii. 81
10. P. I. ii. 51
11. P. I. ii. 53
12. Vide P. I. ii. 55
13. P. I. ii. 60
14. P. I. ii. 63
15. P. IV. ii. 70
16. संख्यावान् सत्त्वभूतोऽर्थः सर्व एवाभिधीयते। भेदा भेदविभागो हि लोके संख्या निबन्धनः॥ Va. III. xi. 1
17. द्वित्वादियोनिरेकत्वं भेदास्तत्पूर्वका यतः। विना तेन न संख्यानामन्यासामस्ति सम्भवः॥ Va. III. xi. 15
18. See Helārāja on Va. III. xi. 18
19. Va. III. ix. 19
20. Va. III. xv. 99 - 140
21. P. V. iii. 42
22. P. V. iii. 43
23. P. V. iii. 44
24. P. V. iii. 52
25. P. V. ii. 48
26. P. V. iii. 48
27. Vide P. II. ii. 13
28. P. V. iii. 49
29. P. V. iii. 50
30. P. II. ii. 2

A SEMANTIC PERSPECTIVE ON PRIMARY SUFFIXES

MEENAMBAL NARAYANAN

LINGUISTS DIVIDE suffixes into stem-forming suffixes and word-forming (inflexional) suffixes. Stem-forming suffixes are again subdivided into primary and secondary suffixes. The primary suffixes are those that are employed in deriving word-stems of primary nouns from verbal roots. They are so called because they are helpful in deriving primary nouns or word-stems. The primary suffixes are designated as *kṛt* by Pāṇini. (Vide *Aṣṭādhyāyī*– rule 3-1-93 - *kṛdatiṅ*) Pāṇini's rule *kṛt taddhita samāsāśca* (1-2-46) designates the word-stems of primary nouns as *prātipadika* from which by adding inflexional suffixes, fully furnished words are obtained. Pāṇini has dwelt at length on primary suffixes in chapter III of his work *Aṣṭādhyāyī*.

Significance of the term kṛt

The term *kṛt* is quite significant and self-explanatory. The term is employed to denote the suffixes which are directly added to roots so as to build up the primary derivatives. Because such a suffix does the chief function of giving a distinctive shape of noun to a root, it is called primary suffix *karoti iti kṛt*. Hence it can be said that these suffixes are called *kṛt* since they make up the primary stems.

Semantic purport of primary suffixes

Primary suffixes denote the six *kārakas* of the action (*kriyā*) denoted by the root to which they are suffixed. They can also denote, or, to be more specific, reflect the action denoted by the

root to which they are added. The semantic purport of primary suffixes can, therefore, be summed up as:

1. *bhāva* or action
2. *kartṛ* or substratum of action
3. *karman* or substratum of fruition
4. *karaṇa* or instrument of action
5. *samprasāraṇa* or addressee of action
6. *apādāna* or point of separation
7. *adhikaraṇa* or substratum of action via *kartṛ* or *karman*

The relevant rules of Pāṇini are *bhave* (3-3-18), *akartari ca kārakae samjñāyām* (3-3-19) and *kartari kṛt* (3-4-67).

Bhāva and the semantic painting given by the primary suffix

Bhāva means *dhātvartha* or the denotation of the root. It is *kriyā* or action itself. The primary suffix denotes *bhāva* when joined to a root. Here no one need doubt the propriety of adding a primary suffix to a root to denote *bhāva*. The semantic significance of the action when conveyed by the suffix is noteworthy. It is quite clearly expressed in the verse :

sādhyatvena kriyā tatra dhāturūpanibandhanā
siddhabhāvastu yastasyāḥ sa ghañādi nibandhanah

(*Bhūṣaṇa* of Bhaṭṭoji Dīkṣita, verse16)

The semantic function of the primary suffix is to delineate the action (already denoted by the root) in such a way so that it can be characterised as *dravya*. The action of killing denoted by the root *han*, when reflected by the primary suffix becomes liable to be qualified by gender; for example by masculine gender as expressed by the word *vadhaḥ*;. by feminine gender as expressed by the word *bhrahma hatyā* and by neuter gender as expressed by the word *hananam*. That is why the grammatical proverb *kṛdabhihito bhāvo dravyavat prakāśate*. The action, when reflected by the primary suffix, gets the characteristic feature of

gender which is totally absent in it when denoted by the roots as in words like *hanti*. The moon which cannot be held in our hand can be stated to be so when reflected in the water contained in the vessel held in our hands. Likewise an action which can never be qualified by gender is made to appear as *dravya* liable to be qualified by gender. Hence Bhaṭṭoji says in his *Siddhāntakaumudī– siddhavasthāpanne bhāve vacye dhatoḥ ghañ syāt*. Thus it comes out that the action denoted by the root is *asattvabhūta* while the same when reflected by the primary suffix is *sattvabhūta*.

Primary suffixes denote an action which is to take place in future. In instances like *yāgāya yāti*, *kṛṣṇam darśako yāti* and *bhoktumyāti* the primary suffix *ghañ*, *ṇvul* and *tumun* denote the action in future when there is another action meant for it. (Pāṇini's rule *tumunṇvulau kriyāyām kriyārthāyam* 3-3-10). So also the primary suffix *ktvā* can denote an action done earlier to another action when both the actions are done by the same *kartṛ* (*samānakartṛkayoḥ pūrvakāle* 3-4-21). To be short, the *bhāva* denoted by the primary suffix gets different shades of meaning.

Kartṛ or the substratum of action

According to Pāṇini, a primary suffix as a rule, denotes *kartṛ*, the substratum of action denoted by the root to which it is added. Instances are too many to need any citation. Yet *pācaka* is cited as an example. It means one who does the act of cooling i.e. *pākavyāpārakartṛ*. Primary suffixes can express different shades of meaning while denoting the statutory sense of *kartṛ*. Citation of some instances will suffice to prove this. In the word *nartakaḥ* the primary suffix *ṣvun* denotes the doer (*kartṛ*) who is adept in it. Hence *nartaka* is an expert dancer. (vide Pāṇini's rule *śilpini ṣvun* 3-1-145). In the word *tundaparimṛjaḥ*, lazy fellow touching one's own belly is denoted by the primary suffix, while in *tundaparimarjaḥ* the primary suffix denotes the one who merely does the action touching the belly. The expression *yaśaskari* denotes the one who is the cause of fame. Hence we can say

yaśaskarī vidyā since learning is the cause of fame. (Pāṇini's rule 3-2-20) The expression *vācamyamaḥ* means one who refrains from speech for the observance of vow while one who controls speech out of weekness or something else, is called *vāgyamah* (vide rule 3-2-40). Sometimes a primary suffix denotes one is the *kartṛ* of an action done in past. Hence *somayāji* means one who had done *somayāga* (*somena iṣṭavān somayājī* (rule 3-2-85).

Karman the substratum of fruition

The primary suffixes denotes the object of fruition produced by the action denoted by the root to which it is added. The expression *hataḥ* denotes the object of killing ile *hananakarma*. Here also the primary suffixes can denote the varieties of meaning like *arham śakyam* etc.

Karaṇa the instrument of action

The primary suffix denotes the instrument of action in expressions like *vahyam*. It means the vehicle by which one is carried away. (*vahanti anena iti vahyam śakaṭam*– rule 3-1-102). So also *prāsaḥ* means the weapon by which ememies are struck *(prāsyante kṣipyante śatravaḥ anena iti) snāniyam cūrṇam (snānti anena iti).*

Sampradāna or addressee of action

The primary suffix can denote that, meant for whom, on which, and action is done. *dānīyaḥ* means a person to whom some thing is given. Hence *dāniya* means *dānasya sampradānam*. *Dāśaḥ* means one for whom something is offered *goghnaḥ* denotes the guest for whom the animal is slaughtered (rule 3-4-73).

Apādāna of point of separation

The word *bhīmaḥ* denotes the source of fear *bibhyati asmād iti bhīmaḥ*. The place from which something falls or flows, can be called *prapatanaḥ* and *praskandanaḥ*. Here the primary suffix denotes *apādāna* or the point of separation.

Adhikarana

Adhikaraṇa is denoted by the primary suffix. Hence *raṅgaḥ* means the place where everyone is pleased (*rajyati asmin raṅgaḥ*). *jaladhiḥ* means the substratum where water is accumulated.

Thus is can be seen that by virtue of the primary suffixes it is possible to express varieties of meaning by word-stems developed from one and the same root denoting and action.

A SEMANTIC PERSPECTIVE ON SECONDARY SUFFIXES

V. VENKATARAJA SARMA

THE SCIENCE of grammar is called *śabdānuśāsana* or the instruction of correct words. The correctness of a word is decided by its continuous use by cultured people. The grammarian tries to instruct the correct words.

It is not possible to collect all the correct words and recite them to the students. So the grammarian has to make some rules by which the entire lot of correct words can be imparted. For this the method of analysis and synthesis is adopted. First, all the words are divided into indivisible significant units called *dhātu* and *pratyaya*. *Pratyaya* is divided into several groups such as *sup*, *tiṅ*, *kṛt*, *taddhita* etc. The *kṛt* and *taddhita* are used to build the nominal bases. The *kṛt* is called primary suffix because it is directly added to the root. They convey meanings of *kārakas* such as *kartā*, *karman*, *karaṇa*, *saṃpradāna*, *apādāna*, *adhikaraṇa* and also the *bhāva* or action.

This can be illustrated by the suffix 'ing' which conveys the meaning of different *kārakas*.

Word	Kāraka	Meaning
Dancing girl	*kartṛ*	a girl who performs dance.
Varms's painting	*karman*	a picture painted by him.
Drinking water	*karman*	water to be drunk.
Cutting machine	*karaṇa*	instrument used to cut.
Walking stick	*karaṇa*	stick to walk with.

Starting place	*apādāna*	place from which something starts.
Reading room	*adhikaraṇa*	room in which people read.
Dining table	*adhikaraṇa*	table on which people dine.
His coming and going	*bhāva*	action of arrival and departure.

Examples in Sanskrit

cintaka *cint* = to think+ *aka (ṇvul)* = *kartṛ* - thinker.

bhukta *bhuj* = to eat + *(kta)* = *karman* - eaten.

lekhanī *likh* = to write + *ana (lyuṭ)* = *karaṇa* - instrument of writing.

dānīya *dā* = to give + *anīya (anīyar)* = *saṃpradāna* - to whom something is given.

bhīma *bhī* = to fear + *ma* = *apādāna* - one from which others fear.

sadana *sas* = to sit + *ana (lyuṭ)* = *adhikaraṇa* - seat or house.

svāpa *svap* = to sleep + *a (ghañ)* = *bhāva* - sleep.

There are several suffixes to convey a single sense of *kāraka* and sometimes a single suffix conveys meaning of several *kārakas*. In *pacaḥ*, *paktā* and *pācaka* all the suffixes convey the meaning of *kartṛ*. In *gata*, *gantavya*, *gamya* and *gamanīya* all the suffixes convey the meaning of *karman*. In *jāra*, *bhukta*, *āsita* and *hasita* the suffix *ta* conveys *kartṛ*, *karman*, *adhikaraṇa* and *bhāva* respectively.

Taddhita or secondary suffix is normally added to words to convey the meaning of another word. It is added to all kinds of words; to nominal stems as in *yāvaka* and *devatā*, to the inflected nouns as in *pūrvāhṇetare*, *pūrvāhṇetame*, *apsavyaḥ* and *āmuṣyāyaṇaḥ*, to indeclinables as in *uccaistarām*, *uccaistamām*, *natarām*, *nitarām* and *sutarām*, to verbs like *pacatitarām*, *pacatitamām* and *pacatikalpam*.

The *taddhita* suffixes play an important part in Pāṇini's grammar. His *Aṣṭādhyāyī* consists of about 4000 *sūtras* in its eight chapters. Almost two chapters– the fourth and the fifth are devoted

to *taddhita* and they have about eleven hundred *sūtras* in this section.

The *taddhita* eludes any accurate definition. For, some of them have an independent meaning, some modify the meaning of the word to which they are added like *bālaka* and *vṛkṣaka* (a naughty boy and a small tree). Some have no meaning at all which are called *atyantasvārthikas* (*yāva eva yāvakaḥ, prajña eva prājñaḥ, nāmaiva nāmadheyam*). Some feminine suffixes like *ṣpha* and *ti* are designated as *taddhita* but they have no meaning at all. *Samāsānta* suffixes which are added to the compound words also have no meaning. However sometimes they help the identification of the compounds. As in *avyayībhāve śaratprabhṛtibhyaḥ, tatpuruṣasyāṅguleḥ saṅkhyāvyayādeḥ, nāvo dvigoḥ, bahuvrīhau sakthyakṣṇoḥ svāṅgāt ṣac* and *dvandvāccudaṣahāntāt samāhāre*.

Generally *taddhitas* can be defined as suffixes added to a word in the meaning of another word. Mostly they are added to noun forms. They are broadly divided into two– *sārthakas* and *svārthikas*. When the meaning of the suffix is prominent it is called *sārthaka* as in *aupagava* which means son of *upagu*. Here the meaning of the suffix is prominent and the meaning of the *upagu* is subordinate to it. *Svārthikas* are divided into two as *svārthika* and *atyantasvārthika*. The *ka* in *bālaka* and *vṛkṣaka* are *svārthikas*. Here the words to which the suffix is added does not lose its prominence. The meaning of the suffix becomes subordinate and modifies the meaning of its *prakṛti*. In *atyantasvāthika* like *yāvaka* and *prājña*, there is no special meaning. Sometimes a *taddhita* suffix is compulsorily added to a *kṛdanta* as in *sāṃrāviṇam* and *sāṅkūṭinaṃ*. Here the *taddhita* suffix *aṇ* is added to the *kṛdanta* words *saṃrāvin* and *saṅkūṭin* without an additional meaning. Here the primary suffix *inuṇ* is added (*abhividhau bhāva inuṇ*) to the roots *ru-śabde* and *kūṭa-dāhe*, by which we get *rāvin* and *kūṭin*. With the preposition *sam* they become *saṃrāvin* and *saṅkūṭin*. But they are not used independently. So a *taddhita* suffix *aṇ* is added (*aṇinuṇaḥ*) to them, by which the first syllable of the word gets

vṛddhi. This cannot be obtained by using a single primary suffix, because there is no provision for the *vṛddhi* in primary suffix. Similar is the case in *vyāvakrośī* and *vyāvahāsī*. Here *vyavakrośa* and *vyavahāsa* are obtained by adding the primary suffix *ṇac* (*karmavyatihāre ṇac striyām*). Then *taddhita añ* (*ṇacaḥ striyāṃ añ*) is added without any additional meaning. But it serves three purposes. The *añ* causes *ādhivṛddhi (taddhiteṣvacāmādeḥ)*, the *udātta* accent to the first syllable (*ñnityādirnityam*) and feminine suffix *ṅīp (ṭiḍḍhāṇañ....)*.

The division of *taddhita* section is very complicated. It requires a computer mind. However the commentators have divided it into *apatyādhikāra, raktādyartha, cāturarthikā, śaiṣika, prāgdīvyatīya, prāgvahatīya, prāgghitiya chayadvidhi, ārhīya, ṭhañadhikāra, bhāvakarmārtha, nañsnañadhikāra, pāñcamika, matvarthīya, prāgdiśīya, prāgivīya, svārthika and samāsānta.*

Here only the *apatyādhikāra, cāturarthika, bhāvakarmārtha, matvarthīya* and *svārthika* are based on the meaning. Others are based on some particular suffixes under a main head. For example the jurisdiction of *prāgdīvyato' ṇ* (4.1.83) extends upto the end of the third *pāda* in the fourth chapter. But there is a large number of other suffixes in that section. Sometimes different *anubandhas* are added to the same suffix which make it seem different suffixes. For example the suffix *ṭha* gets ten different forms with different *anubandhas*.

1. *ṭhak*	*dadhnaṣṭhak*	4.2.18	*dādhikī*	seasoned with curd
2. *ṭhañ*	*kālāṭṭhañ*	4.3.11	*sāṃvatsarikī*	happening once a year
3. *ṭhan*	*naudvyacaṣṭhan*	4.4.07	*ghaṭikā*	swimmer with a pot
4. *ṭhac*	*vuñchaṇkaṭha..*	4.2.80	*kumudikā*	having lily flower
5. *ṣṭhan*	*kusīdadaśaikā..*	4.4.31	*kusīdikī*	a lender
6. *ṣṭhac*	*kusīdadaśaikā...*	4.4.31	*daśaikādaśikī*	one taking 10 per-cent intrest
7. *ṣṭhap*	*prāvṛṣaḥ ṣṭhap*	4.3.26	*prāvṛṣikī*	born in rainy season
8. *ṣṭhal*	*ākarṣātṣṭhal*	4.4.09	*ākarṣikī*	Living with touch stone

9.	*ñiṭha kāśyādibhyaḥ..*	4.2.11	*kāśikā*	composed in *kāśī*
10.	*ṭiṭhan kaṃsāṭṭiṭhan*	5.1.25	*kaṃsikī*	purchased with *kaṃsa* measure

The purpose of the anubandhas is given below:

1. *ṭhak*	*ādivṛddhiḥ*[1]	*antodāttatvam*[2]	*striyāṃ ṅīp*[3]
2. *ṭhañ*	do[4]	*ādyaudāttatvam*[5]	do[3]
3. *ṭhan*		do[5]	*striyāṃ ṭāp*[6]
4. *ṭhac*		*antodāttatvam*[7]	do[6]
5. *ṣṭhan*		*ādyudāttatvam* [5]	*striyāṃ ṅīṣ*[8]
6. *ṣṭhac*		*antodāttatvam*[7]	do[8]
7. *ṣṭhap*		*anudāttatvam*[9]	do[8]
8. *ṣṭhal*		*pratyayātpūrvamudāttam*[10]	do[8]
9. *ñiṭha*	*ādivṛddhiḥ*[4]	*ādyudāttatvam*[5]	*striyāṃ ṭāp*[6]
10. *ṭiṭhan*		*ādyudāttatvam*[5]	*striyāṃ ṅīp*[3]

The relevant sutras are given below:

1. *kiti ca* 7.2.76. *kit* brings *ādivṛddhi* to the stem.
2. *kitaḥ* 6.1.165. *kit taddhita* makes the word *antodātta*.
3. *ṭiḍḍhāṇañ...* 4.1.005. Word ending *ṭit*, *ṭhak* or *ṭhañ* gets the feminine suffix *ṅīp*.
4. *taddhiteṣvacāmādeḥ* 7.2.75. *ñit* or *ṇit taddhit* brings *ādivṛddhi* to the stem.
5. *ñnityādirnityam* 6.1.197. *ñit* or *ṇit* suffix makes the word *ādyudātta*.
6. *ajādyataṣṭāp* 4.1.4. Feminine suffix *ṭāp* is added to words ending in *a*.
7. *citaḥ* 6.1.163. *cidanta* word will be *antodātta*.
8. *ṣidgaurābhyaśca* 4.1.41. Feminine suffix *ṅīṣ* is added to *ṣidanta* word.
9. *anudāttau suppitau* 3.1.4. Suffixes *sup* and *pit* are *anudāttas*.
10. *liṭi* 6.1.1.90. Syllable preceding a *liṭ* suffix will be *udātta*.

The bare suffix in all these varieties is *ṭha* which is also replaced by *ika* or *ka*. (*ṭhasyekaḥ, isusuktāntāt kaḥ*). One may doubt why *ṭha* is replaced by *ika* and *ika* is not directly mentioned. But the fact is that for the sake of brevity Pāṇini supposes a hypothetical monosyllabic suffix in the place of multisyllabic one and then replaces the former by the latter. Thus for *ana* and *aka* he supposes *yu* and *vu* and in the place of *āyana, eya, īna, īya* and *iya*, supposes *pha, ḍha, kha, cha* and *gha* respectively. (*yuvor anākau, āyaneyīnīyiyaḥ pha-ḍha-kha-cha- ghāṃ pratyayādīnām*). In the case of multisyllabic suffixes which occur only once, they are used in the orginal form.

In the *taddhita* rules there will be normally two parts like *tasya-apatyam* and *tatra-jātaḥ*. Here the first pronoun stands for some noun. The second conveys a meaning. Substituting the pronoun with suitable noun we get syntactically connected phrases *upagoḥ apatyam* and *srughne jātaḥ*. The *sūtra— samarthānāṃ prathamād vā* rules that between the two syntactically connected words a suffix may be added to the first in the meaning of the second. The suffix is known from the context or by specific mention in that *sūtra*. The suffix *aṇ* is added to *upagoḥ* and we get the form *aupagava* meaning the son of *upagu*. Likewise in the second we get *sraughna* meaning born in *srughna*.

A question arises here as to whether the *taddhita* suffix is added to the inflected word *upagoḥ* or to the nominal stem *upagu*. It is resolved that the suffix is added to inflected word. But case ending suffix is dropped according the *sūtra– supo dhātuprātipadikayoḥ*. Further the prohibition of the elusion of the *sup* suffix in *pūrvāhṇetare, apsavyaḥ* and *apsumantau* indicates that the *taddhita* is added to the inflected words. However the *atyantasvārthika* suffixes are added to the nominal stem.

In some rules the first element is specified as in *sāsya devatā*. Here the first word should be the name of a deity. The second element *asya* stands for any *havis, mantra* or hymn belonging to that deity. Thus we get *aindra* and *āgneya* from *indra* and *agni*.

In some rules the second element is specified as in *dṛṣṭam sāma*. Here the *taddhita* is added to the name of a sage to mean the *sāman* seen (composed) by him. In case of *svārthika taddhitas* there will be no group of syntactically connected words, as in *aṇinuṇah (sāṃrāviṇam) aveḥ kaḥ (avikaḥ)*. In some rules the meaning of *taddhita* is conveyed using the word in locative as in *adhikṛtya kṛte granthe* (4.3.87) and *upajñāte* (4.1.15). The first member of the syntactically connected group is found in all cases representing all *kārakas*.

Vibhakti	Sūtra	Meaning	Example
1. *Prathama*	*tad asya paṇyam* 4.4.51		*āpūpikaḥ*
	tad asya parimāṇam 5.1.57		*prāsthikaḥ vrīhiḥ*
2. *Dvitīya*	*tad adhīte tad veda* 4.2.59	*karman*	*vaiyākaraṇaḥ*
	tad arhati 5.1.63	*karman*	*daṇḍyaḥ coraḥ*
3. *Tṛtīyā*	*tena kṛtam* 5.1.37	*karaṇa*	*śatyam vastram*
	tena proktam 4.3.101	*kartṛ*	*pāṇinīyaṃ vyākaraṇam*
4. *Caturthī*	*tasmai hitam* 5.1.5	*tādarthyam*	*cakṣuṣyam añjanam*
	tadartham vikṛteḥ 5.1.12	*tādarthyam*	*prāsādīyāḥ iṣṭakāḥ*
5. *Pañcamī*	*tata āgataḥ* 4.3.74	*apādāna*	*māthuraḥ puruṣaḥ*
	(tataḥ) prabhavati 4.3.83	*apādāna*	*haimavatī gaṅgā*
6. *Ṣaṣṭhi*	*tasyedam* 4.3.120	*saṃbandhaḥ*	*vaiṣṇavaṃ cakraṃ*
	tasya vikāraḥ 4.3.134	*saṃbandhaḥ*	*khādiraḥ yūpaḥ*
7. *Saptamī*	*tatra jātaḥ* 4.3.25	*adhikaraṇa*	*rāṣṭriyaḥ*
	tatra niyuktaḥ 4.4.69	*adhikaraṇa*	*dauvārikaḥ*

The second member of the group also represents several *kārakas*. In *tatra bhavaḥ* and *tata āgataḥ* it is *kartṛ*. In *tena raktam rāgāt* and *tena nirvṛttam* it is *karman*. In *tasya vyākhyānaḥ* and *rakṣoyātūnāṃ hananī* it is *karaṇa* in *sāsmin paurṇamāsīti* and *tadasyām praharaṇam* it is *adhikaraṇa*. If the second member is a finite verb that also denotes *kartṛ*. Hence *tad adhīte tad veda* means *tad adhīyānaḥ* and *tad vidvān*, i.e. the learner or knower of a subject.

Pāṇini begins *taddhita* section with suffixes conveying the meaning of *apatya*. *Apatya* normally means immediate progeny, i.e. son or daughter. A grandfather will refer to his grandson his son's *apatya* and not as his own. But in grammar that term is used in a wider sense meaning any descendent of a patriarch. From the grandson of the third generation the descendent is also called *gotra* and from the great grandson or the fourth generation he is called *yuvan* or junior, provided that a senior person in the lineage is alive. Different suffixes are added to different personages known in the ancient India.

A suffix ruled without any restriction can be used to denote any of the descendents. But a suffix ruled in the sense of *gotra* or *yuvan* can be used to denote them only. For example the *aṇ* ruled by *tasyāptyam* and *iñ* can be used to denote all the descendents. But the *gotre kuñjādibhyaḥ cphañ* and *gargādibhyo yañ* can be used only to denote *gotra* descendent. So *gārgya* and *vātsya* mean the *gotra* descendent of *garga* and *vatsa*. To denote the immediate progeny *iñ* is added giving the forms *gārgi* and *vātsi*. The suffix to denote the junior descendent is added to the form which denotes a *gotra* descendent. Thus by adding the suffix *phak* (*yañiñośca* 4.1.101) to *gārgya* and *vātsya* we get *gārgyāyaṇa* and *vātsyāyana* meaning son of *gārgya* and *vātsya*. If there is no separate *gotra* suffix, a single common suffix is used to denote both the direct progeny and the *gotra*. So *aupagava* may mean either son or grandson of *upagu*. So also *dākṣi* may be son or grandson of *dakṣa*. By adding *yuvan* suffixes the forms *aupagavi* (*iñ*) and *dākṣāyaṇa* (*phak*) may be obtained to denote their sons.

The following table will make the meaning of the three kinds of suffixes more clear.

Patriarch	Son	Grandson	Great grandson
garga	*gārgi*[1]	*gārgya*[2]	*gārgyāyaṇa*[3]
kuñja	*kauñji*[1]	*kauñjāyanya*[4]	*kauñjāyani*[1]
harita	*hāriti*[1]	*hārita*[5]	*hāritāyana*[6]
naḍa	*nāḍi*[1]	*nāḍāyana*[7]	*nāḍāyani*[1]

upagu	*aupagava*[8]	*aupagava*[8]	*aupagavi*[1]
dakṣa	*dākṣi*[1]	*dākṣi*[1]	*dākṣāyaṇa*[3]
dhātṛ	*dhātra*[8]	*dhātra*[8]	*dhātrāyaṇi*[9]
paṇī	*pāṇina*[8]	*pāṇina*[8]	*pāṇini*[1]

	Sūtra	Suffix	Meaning
1.	*ata iñ* 4.1.95	*iñ*	descendent
2.	*gargādibhyo yañ* 4.1.105	*yañ*	*gotra*
3.	*yañiñośca* 4.1.101	*phak*	*yuvan*
4.	*gotre kuñjādi..* 4.1.98	*cphañ*	*gotra*
5.	*anṛṣyānantarye...* 4.1.104	*añ*	*gotra*
6.	*haritādibhyoñaḥ* 4.1.100	*phak*	*yuvan*
7.	*naḍadibhyaḥ phak* 4.1.99	*phak*	*gotra*
8.	*tasyāpatyaṁ* 4.1.92	*aṇ*	descendent
9.	*aṇo dvyacaḥ* 4.1.156	*phiñ*	*yuvan*

Now one may have a doubt as to how the word Pāṇini can be used now because it means a junior when his father is alive: neither he nor his father is alive. Reply to this is that there is a provision to treat a *gotra* descendent as *yuvan* to show respect of him. So the author or *Aṣṭādhyāyī* is respectfully referred to as Pāṇini.

Even though the families are known on the paternal head of the family, many a hero is known after his mother's name. Example: 1. *āñjaneya* 2. *kādraveya* 3. *kaunteya* 4. *gāṅgeya* 5. *pārtha* 6. *yāmuna* 7. *raivatika* 8. *raukmiṇeya* 9. *rauhiṇeya* 10. *vainateya* 11. *sauparṇeya* 12. *saubhadra* 13. *saumitri*.

Some important apatya suffixes are given below:

ṇya	*āditya*	son of aditi
iñ	*dāśarathi*	son of daśaratha
ḍhak	*dātteya*	son of dattā
cha	*svaśrīya*	son of sister

yat	*rājanya*	son of king
kha	*kulīna*	son of good family man
vyat	*bhrātṛvya*	son of brother
ṭhak	*raivatika*	son of revati
phiñ	*taikāyani*	son of tika

In the case of words which denote as country as well as a *kṣatriya* such as *pañcāla* and *magadha* the *apatya* suffix is also used to mean the king of that country. So *pāñcāla* may mean son of *pañcāla* or the king of *pañcāla*.

It may be noted that sometimes a single suffix conveys several meanings and sometimes several suffixes are used to denote a single meaning. The suffix *aṇ* is used to convey more than seventy meanings and some forty suffixes are used to convey the meaning of the possession.

Some of the taddhita suffixes from other section are given below:

Suffix is added to dyes to mean the cloth dyed with it. Thus we get *kāṣāya* and *lākṣika* by adding *aṇ* and *ṭhak* to *kaṣāya* and *lākṣā* to mean the cloth dyed by ochre and lac. (*tenaraktaṃ ragāt*)

The names of stars (constellation) are used to denote the day on which the moon appears against those stars. However grammarians add a suffix to denote that day and then drop it. Thus *adya puṣyaḥ* and *adya rohiṇī* mean that the moon is against those stars on those days. These names of star are used to denote the full moon days such as *caitrī, vaiśākhī, āṣāḍhi, śrāvaṇi* etc. Adding another suffix to those words we get *caitra, vaiśākha, āṣāḍha, śrāvaṇa* etc., denoting the months in which those full moon days occur. (*nakṣatreṇa yuktah kālaḥ sāsmin paurṇamāsīti.*)

The chariots are named after the material by which their upper part is covered. Thus *vāstraḥ, pāṇḍukaṃbalī* and *vaiyāghraḥ* mean the chariots covered with cloth, carpet and tiger-skin. (*parivṛto rathaḥ*)

Food is known by the medium in which it is cooked. This *dādhika* and *pāyasa* mean curd rice and milk porridge. (*saṃskṛtam bhakṣāḥ*)

A devotee sleeping on floor for the sake of a vow is called *sthāṇḍila*. (*sthaṇḍilācchayitari vrate*)

The offering to the deity is known by the name of the deity adding a suffix to it. *Aindra* and *āgneya* are offerings to *agni* and *indra*. These may mean also the hymns praising those deities. (*sāsya devatā*).

The suffix *tal* is normally used to denote *bhāva* or characteristics. But *grāmatā janatā* and *bandhutā* mean groups of villages, peoples and relatives. (*grāma-jana-bandhubhyastal*).

Battle is known by the aim for which it is fought or by warriors who fought it. So *saubhadra* is one fought for *subhadrā* and *bhārata* is one fought by bharatas (*saṅgrāme prayojana-yoddhṛbhyaḥ*)

Several suffixes are added to the name of the text or subject by which its learner or knower is meant. Thus *vaiyākaraṇa naiyāyika*, and *mīmāṃsaka* are obtained by adding *aṇ*, *ṭhak* and *vun* to mean those who learn or know *vyākaraṇa*, *nyāya* and *mīmāṃsā* respectively. Commentators define that learning means the study of the text and knowing means the understanding of the meaning. But it is proper to say that learning is understanding and knowing is keeping in memory what is understood.

A work is known by its author or by its subject matter of the one who taught it. Composing of a work is known as *kṛta* and composing and teaching it is known as *prokta*. In case of hymns they are referred to as seen or *dṛṣṭa* by the sage and not as composed. So *vāsiṣṭhaṃ sāma* and *vāmedvyam sāma* mean the *sāman* seen by them. *Śākuntalam* is named after the heroine Śakuntala and *Kirātārjunīya* is based on the characters *Kirāta* and *Arjuna*. Sometimes the main characters name is used without any suffix as in *Rantāvalī* and *Vāsavadatto*. However the grammarian adds a suffix here and then drops it. The names of *chandas* and

brahmaṇas are derived from their teachers names. But they are used only with a learner-suffix or knower-suffix, and they are not used independently. Thus *Taittirīya* means a learner of the scripture seen by *Tittiri*. A very interesting matter here is that all the learner- suffixes are dropped after the words with a *prokta*-suffix. In case of *kaṭha* and *caraka* even the *prokta*-suffix is dropped. Hence the bare words *kaṭha* and *caraka* may mean the sages, the *chandas* they taught and also the students who study them.

There is section called *cāturarthika* in which the name of a place, river or well is known by things abounding there, by the name of person who founded it, by the people dwelling there or by the things existing nearby. So *audumbra* is the name of a place where *udumbara*-trees abound. Kauśāmbī is a town established by Kuśāmba, Pañcāla is a country where warriors called Pañcālas reside. Sauvāstavam is a town very near to the river Suvāstu. There are also many wells which are known after the peoples' name who dug it for public welfare. Dairghavaratra, Dātta, Sāṅkala, Rauṇa, Ājakarauṇa, Kākavārkava and Kārṇacchidraka are all the names of wells based of their donors.

In *śaiṣika* section (4.2.92 to 4.3.133) some thirty meanings are enumerated and several suffixes are mentioned. It is called *śaiṣika* because it excludes the previous section from its field. Here the general suffixes are *aṇ, añ, nañ, snañ* and *ṇya* mentioned in the *sūtras* 4.1.83 to 4.1.87. Overruling them some specific suffixes are ordained to particular words such as *rāṣṭrāvārapārād ghakhau* from 4.2.93 to 4.3.24. Then the meanings like *tatra jātaḥ* etc., are given. Even here some exceptions are made in some meaning as *rathād yat* which overrules all other suffixes from the word *ratha* in the meaning *tasyedam*. So under the *sutra—tasyedam* meaning 'one belonging to it', we get *vaiṣṇavam, autsam, straiṇam, pauṃsnam, prājāpatyam* by general suffixes *āṇ, añ, nañ, snañ* and *ṇya*, meaning that which belong to *viṣṇu, utsa* (fountain), *strī, pumān* and *prajāpati*. By *śaiṣika* suffxes we get *rāṣṭriya, avārapārīṇa, grāmya* and *grāmīṇa* etc., and by the

special suffix *yat* we get *rathya* which means a wheel that belongs to a chariot.

The next section is *vikārārtha* which extends from 4.3.134 to 4.3.168. *Vikāra* or transformation is used in a very wide sense. A pot made of clay is its *vikāra*. An idol made out of stone is stone's *vikāra*. Ash got by burning the wood and furniture made of wood are *vikāra* of wood. The meat is the *vikāra* of animal. The flour and bread are *vikāra* of corn. The flowers and fruits are *vikāra* of tree. *Vikārārtha* suffixes if added to the names of animal *oṣadhis* and trees, also convey the meaning of *avayava* or parts. *Oṣadhis* are those plants which yield only once and then perish. Khadira is a tree. So *khādira* may mean a branch, root or leaves of that tree and any furniture made of it or ash got by burning it. The hide or meat of *eṇī* (deer) is *aiṇam*. Milk of the cow is its *vikāra* and hence *gavya* means milk also besides its other products. Curd is the *vikāra* of milk (*payas*) so it is called *pāyasya*. The *vikāra*-suffix is mostly dropped when it means root, fruit or flower. So *mallika* and *jāti* mean both the creaper and their flowers. Likewise *vidāri* means both the plant and its root and *jambū* means both the tree and its fruit. The jurisdiction of the general suffixes *aṇ, añ* and *ṇya* which are called *prāgdīvyatīya* ends here, but *nañ* and *snañ* continues upto the end of first *pāda* of the fifth chapter.

Next section is called *prāgvahatīya* or *ṭhagadhikāra* (4.4.1 to 4.4.74). Thirty-four meanings are enumerated in this section. One of the *sūtras*— *vetanādibhyo jīvati* sheds light to various kinds of labour. *Vaitanika* is one who lives with wage or salary. *Vāhika* is one who carries the load from one place to another. *Maurdhavāhika* is head-load worker. *Aupadeśika* is a teacher who lives with *upadeśa* or instruction. *Dhānuṣkā* is one who lives with his bow. The *sūtras tarati* gives an idea how the people crossed river etc., in those days. *Nāvika* is one who crosses by ship, *auḍupika* is one who crosses with a boat and *gaupucchika* is one who crosses holding the tail of a cow.

Lending was considered very mean. Pāṇini uses a sūtra *prayacchati garhyam* to denote a lender. Examples are given

dvaiguṇika and *traiguṇika* meaning a man who lends to get double or trible of the principal. Another word is *daśaikādaśika* meaning one who lends at 10 per cent interest. Of course it will be on monthly basis.

In this section *vārtika* gives some examples as *māśabdikā*, one who asks to keep silence and not to make sound. *Svāgatika* is one who says welcome to the guests. *Saukhaśāyanika* is one who enquires in the morning if there was sound sleep during night.

Several kinds of artisans are described in this section. *Mārdaṅgika*, *vaiṇavika* and *vaiṇika* are the players of *mṛdaṅga* (drum), *veṇu* (flute) and *vīṇa* (lute). *Dvalyanyika* and *traiyanyika* are those who commit two are three errors in the examination.

Next is *prāgghitīya* or *yadadhikāra* where the main suffix is *yat*. There are seventy *sūtras* in this section from 4.4.75 to 4.4.144. In this section we get the words *dharmya*, *pathya*, *arthya* and *nyāyya*, which mean, not wavering from duty, right path, wealth and justice. The *sūtra— tatra sādhuḥ* rules the suffix *yat* in the meaning, skilled in it or suitable for that. Hence *sabhya* means fit for assembly i.e. cultured or refined.

Chapter V of *Aṣṭadhyāyī* begins with the suffix *cha*. The *sūtra— tasmai hitam* on which the name *taddhita* is based occurs in this section. *Hita* means beneficial. A number of other suffixes also are enjoined in this section. So *vatsīya*, *gavya*, *sārvajanika* and *sārvajanīna* mean, beneficial for *vatsa* (calf) cow and the public, adding the suffixes *cha*, *yat*, *ṭhañ* and *kha*.

Next is *prāgvatīya* section (5.1.18 to 5.1.114). The meanings enumerated here are; purchased by that, its lord, known there, field for sowing etc. Hence *śatya* or *śatika* means bought for hundred rupees. *Sārvabhauma* and *pārthiva* mean known all over the world or the lord of it. Suffix *ṭhak* is added to measuring units to mean the field where that much grain can be sown as in *prāsthika* and *draunika*, meaning the fields where that much of grain can be sown.

Hereafter Pāṇini does not rule a suffix for a whole section. Suffix *vati* is added to denote the likeness of action. So

brāhmaṇavad adhīte means, a non-Brāhman recites like a *brāhman*. This suffix is also used the meaning of 'to deserve' as in *yudhiṣṭhiraḥ kṣatriyavat pālayati*. Here the suffix *vati* does not mean likeness, because Yudhiṣṭhira himself is a *kṣatriya*. So it means that this kind of protection deserves a real *kṣatriya*.

Next come the suffixes denoting *bhāva* or characteristics. *Tva* and *tal* can be added to any noun such as *gajatvam* and *gajatā*. To some selected words *imanic* is added as in *aṇimā, garimā, laghimā* and *pāṇḍimā*. *Śyañ* is added to some words as *śauklya, kārṣṇya* and *dārḍhya*. *Aṇ* is added to words ending in *i* and *u* as in *śauca, mauna,.gaurava* and *lāghava*. *Yak* is added in *rājya, paurohitya* etc. Ţhese words also denote the duty of the king and the priest. Some other suffixes are also added as in *vārdhakam, kāpeyam* and *jñāteyam*. Here the words ending with *imanic* are used in masculine gender, those ending with *tal* in feminine and others in neuter. But some words ending with *ṣyañ* are used both in neuter and feminine such as *naipuṇyam - naipuṇī; cāturyam-cāturī*.

Suffixes of measurement: Three suffixes *dvayasac, daghnac* and *mātrac* are added to mean height or depth as in *uromātram, urodaghnaṃ* and *urodvayasam jalam*, meaning that there is water in the river upto the chest. *Aṇ* is added in *pauruṣa* and *hāstina* which mean as ḥigh as a man and as high as an elephant.

Suffixes meaning possession.(5.2.94 to 5.2.140). *Matup* is added to all nouns to denote possession as in *gomān, buddhimān* and *dhanavān*. In some words *m* of the *matup* is changed into *v* as in *daṇḍavān, balavān*. Suffixes *ini* and *ṭhan* are added to some words as in *dhanin, dhanika*. A number of other suffixes are added to particular nouns to denote possession. Some examples are given below.

cūḍā-lac =cūḍāla, *pāṃsu-lac= pāṃsula,*
svam-āminac = svāmin, *phena-ilac = phenila,*
loma-śa = lomaśa, *pāma-na = pāmana,*
aṅga-na = aṅganā, *tapas-vini = tapasvin,*

sikat-iḷac = sikatila,
ūṣa-ra = ūṣra,
dru-ma = druma,
gāṇḍī-va = gāṇḍīva,
ūrjas-vala = ūrjasvala,
śikhā-vala = śikhavala,
rūpa-ya= rūpya,
ūrṇā-yus = ūrṇāyu,
vāc-āla= vācāla,
danta-urac = dantura,
pāṃsu-ra= pāṃsura,
keśa-va = keśava,
ajaga-va= ajagava,
kṛṣī-vala = kṛṣīvala,
tunda-ila = tundila,
medhā-vini = medhāvin
vāc-gmini = vāggmin,
vāc-āṭa = vācāṭa,

Commentators of literary works very often quote a sentence *arśa ādyac*. By that they mean the *sūtra*—*arśa ādibhyoc* (5.2.127) by which *ac* is added to some selected words (*arśasa, catura*). But commentators use it to get all forms which cannot be got otherwise. (*balaḥ = balavān, palitaḥ = palitavān*)

Vibhakti pratyayas: The third *pāda* of the fifth chapter begins with suffixes which are added to *sarvanāmans* ending in *pañcamī* or *saptamī* by which they become *avyayas*.

tasmāt + tasil = tatas,
kasmāt + tasil = kutas
asmāt + tasil = itas
etasmāt + tasil = atas
tasmin + tral = tatra
kasmin + tral = kutra
etasmin + tral = atra
kasmin + at = kva
asmin + ha = iha,
sarvasmin (kāle) + dā = sarvadā
tasmin (kāle) + da = tadā
asmin (kaḷe) + dhunā = adhunā
asmin (kāle) + rhi = etarhi
tasmin (kāle) + dānīm = tadānīm
asmin (kāle) + dānīm = idānīm
tena (prakāreṇa) + thāl = tatha

sarveṇa (prakāreṇa) + thāl = sarvathā

anena (prakāreṇa) + tham = ittham

kena (prakāreṇa) + tham = katham

suffixes are also added to words denoting place or time. (5.3.27 to 5.3.38)

pūrvaḥ, -smāt, -smin (deśa / kāla) + astāt = purastāt

dakṣiṇaḥ, -ṇāy,-ṇe (deśa / kāla) + tas = dakṣiṇataḥ

dakṣiṇaḥ, -ṇe (adūre) + enap = dakṣiṇena

uttaraḥ, -re (adūre) + enap = uttareṇa

dakṣiṇaḥ, -ṇe (dūre) + āhi = dakṣiṇāhi

Suffixes of comparison (5.3.55to 5.3.65). There are two sets of suffixes *tarap* and *iyasun* and *tamap* and *iṣṭhan*. The former is used to compare two individuals or two groups as in *devadattād yajñadattaḥ paṭutaraḥ* and *māthurāḥ pāṭaliputrakebhyaḥ ādhyatarāḥ*. *Tarap* and *tamap* are added to select the best from a group. They are added to all kinds of words including verbs and indeclinables. A suffix *ām* is added to words ending in *tara* and *tama* when they are used adverbially and the words become *avyaya*.

go-tarā = better yielding cow.	*go-tamā* = best yielding cow.
pacati-tarām = cooks better.	*pacati-tamām* = cooks best.
ati-tarām = more.	*ati-tamām* = most.
pācaka-taraḥ = better cook.	*pācaka-tamaḥ* = best cook
mahat-taraḥ = greater.	*mahat-tamaḥ* = greatest.
śakta-taraḥ = stronger.	*śakta-tamaḥ* = strongest.
śukla-taraḥ = whiter.	*śukla-tamaḥ* = whitest.

Īyasun and *iṣṭhan* are added only to adjectives as in *paṭīyān* and *paṭiṣṭaḥ*. While adding these suffixes some words become unrecognizable as in the following examples.

priyaḥ	*preyān*	*preṣṭhaḥ*
varaḥ	*variyān*	*variṣṭhaḥ*

vṛddhaḥ	*varṣiyān*	*varṣiṣṭhaḥ*
praśasyaḥ	*śreyān*	*śreṭhaḥ*
bahulaḥ	*baṃhīyān*	*baṃhiṣṭhaḥ*
bahuḥ	*bhūyān*	*bhūyiṣṭhaḥ*
antikaḥ	*nedīyān*	*nediṣṭhaḥ*
hrasvaḥ	*hrasīyān*	*hrasiṣṭhaḥ*
bāḍhaḥ	*ṣādhīyān*	*sādhiṣṭaḥ*
guruḥ	*garīyān*	*gariṣṭhaḥ*
yuvā	*yavīyān*	*yaviṣṭhaḥ*

These changes also take place while adding the *bhāvārtha*-suffix *imanic* as in *preman, stheman, kraśiman, prathi man, mradiman, draḍhiman, mahiman, drāghiman* and *bhūman,*

Svārthika-suffixes: (5.3.73 to 5.3.91) These are added to modify the meaning of words to which they are added. So *bālaka* (*ka*) may mean a boy whose particulars are not known, a naughty boy, a poor boy, a small boy or a short boy. *Kuṭīra* (*ra*) is a small hamlet, *kutupa* (*ḍupac*) is a small leather bag, *goṇītarī*, (*ṣṭarac*) is a medium sack.

Ḍatarac and *ḍatamac*. (5.3.92 + 93) These are added to *kim yad* and *tad* while referring to one of the two and one of the many respectively, as in *anayoḥ katarah kathaḥ, eśāṃ katamaḥ kṣatriyaḥ,* So also *yataraḥ, yatamaḥ, tataraḥ,* and *tatamaḥ,*

Some suffixes are added in the meaning of simile. So *śaileyaṃ dadhi* is curd as hard as a stone, *mukhya* is as important as the face, *kuśāgrīyā buddhi* is intelligence as sharp as the tip of *kuśa* grass and *kākatālīyam* is some incident which is as accidental as the arrival of the crow and the fall of palm fruit.

Kṛtvasuc is added to numerals to denote the repetition of the action, as in *pañcakṛtvaḥ bhuṅkte* meaning, he eats five times. But *suc* is added to *eka, dvi, triḥ* and *catur* giving the forms *dviḥ, triḥ* and *catuḥ. Eka* is substituted by *sakṛt* meaning once.

Atyanta-svārthika suffixess (5.4.27 to 5.4.42): Some suffixes are added without making any difference in the meaning as in *avi-*

avika, deva - devatā, yāva - yāvaka, mṛt - mṛttika, alpa - alpaśaḥ and *ekaika - ekaikaśaḥ*.

Suffix *cvi* (zero suffix) is added when something turns to a different one or it is made a different thing as in *śvetībhavati* - non white becomes white and *kṛṣṇīkaroti* - non black is made black. Here the last *a* becomes *ī*, *i* and *u* are lengthened and *ṛ* becomes *rī* as in *śucībhavati, paṭūbhavati* and *mātrīkaroti*.

Taddhita suffix *ḍāc* (5.4.57 to 5.4.67): It is added to imitative inarticulate sound having atleast two syllables and not followed by the word *iti*. Here the word is doubled.

Eg. *paṭa-paṭākaroti* = Imitates the tapping sound *paṭat*, *kharaṭa-kharaṭākaroti* = Imitates grinding sound *kharaṭa*. It is also added to some other words as in *dvitīyākaroti* and *tṛtīyākaroti* which mean 'ploughing twice and thrice'. *Satyākaroti* means the purchaser settles business giving some advance.

The last part of *taddhita* section deals with *samāsānta* suffxes. As they have no special meaning they are not explained here.

At the Indology Department, French Institute of Pondicherry, examples found in the *taddhita* section of the four works *Mahābhāṣya, Kāśikāvṛtti, Paribhāṣāvṛtti* and *Siddhāntakaumudī* are collected, analysed and explained giving *prakriyā* according to traditional method and providing necessary notes. They are being fed to the computer and will be available in CD-ROM very shortly.

Appendix

(Extract from the Pāṇinīya-vyākaraṇa-udāharaṇa-prakriyā-kośa project. Department of Indology, French Institute, Pondicherry)

गार्ग्यायणः

A and SK: 4.1.094/1094	Source: SK. 2.302; K.3.431
4.1.101/1103	SK. 2.306; K.3.441

Definition: गर्गस्य गोत्रापत्यं पुमान् गार्ग्यः, तस्यापत्यं माणवकः

गर्ग+अस्+य	गर्गादिभ्यो यञ्	4.1.105/1107	गर्गशब्दात् षष्ठ्यन्तात् गोत्रापत्यार्थे यञ् तद्धितः
	कृत्तद्धितसमासाश्च	1.2.046/0179	तद्धितान्तत्वात् प्रातिपदिकसंज्ञा
गर्ग+य	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
गार्ग+य	तद्धितेष्वचामादेः	7.2.117/1075	ञिति तद्धिते अङ्गस्याचामादेः वृद्धिः
गार्ग्+य	यस्येति च	6.4.148/0311	तद्धिते भस्य अवर्णस्य लोपः
गार्ग्य+ङस्+फ	यञिञोश्च	4.1.101/1103	गोत्रापत्यवाचिनः यञन्तात् युवापत्यार्थे फक् प्रत्ययः
	कृत्तद्धितसमासाश्च	1.2.046/0179	तद्धितान्तवात् प्रातिपदिकसंज्ञा
गार्ग्य+फ	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
गार्ग्य+आयन	आयनेयी...	7.1.002/0475	प्रत्ययादेः फकारस्य आयन्नादेशः
गार्ग्य्+आयन	यस्येति च	6.4.148/0311	तद्धिते भस्य अवर्णस्य लोपः
गार्ग्यायण	अट्कुप्वाङ्...	8.4.002/0197	नस्य णत्वम्
गार्ग्यायण+स्	स्वौजसमौट्	4.1.002/0183	प्रातिप्रदिकात् सुप्रत्ययः
गार्ग्यायणर्	ससजुषो रुः	8.2.066/0162	पदान्तस्य सस्य रुत्वम्
गार्ग्यायणः	खरवसानयोः...	8.3.015/0076	रेफस्य विसर्गः

Notes: यञिञोश्च (4.1.101/1103) इति फक् प्रत्ययः सामर्थ्यात् युवापत्यार्थे भवति। गोत्रप्रत्ययान्तात् अपरस्य गोत्रापत्यप्रत्ययस्य असम्भवात् Cf. एको गोत्रे (4.1.093/1093) गोत्राद्यून्यस्त्रियाम् (4.1.094/1094) इति गोत्रप्रत्ययान्तात् पुनरपत्यार्थप्रत्ययः युवापत्ये एव स्यात्।

षाण्मातुरः

A and SK: 4.1.115/1118 Source: SK. 2.312

Definition: षण्णां मातृणाम् अपत्यं पुमान्

षष्+अस्+मातृ+अस्	तद्धितार्थोत्तरपद...	2.1.051/0728	तद्धितार्थे विषये द्विशब्दस्य मातृशब्देन द्विगुसमासः
	कृत्तद्धितसमासाश्च	1.2.046/0179	समासत्वात् प्रातिपदिकसंज्ञा
षष्+मातृ	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
षष्+मातृ+आम्+अ	मातुरुत्संख्या...	4.1.115/1118	संख्यापूर्वात् मातृशब्दात् अपत्यार्थे अण् तद्धितः

षष्+मातुर्+आम्+अ	मातुरुत्संख्या...	4.1.115/1118	अण्सन्नियोगेन मातृशब्दस्य उकारः रपरः अन्तादेशः
	कृत्तद्धितसमासाश्च	1.2.046/0179	तद्धितान्तत्वात् प्रातिपदिकसंज्ञा
षष्+मातुर्+अ	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
षाष्+मातुर्+अ	तद्धितेष्वचामादेः	7.2.117/1075	णिति तद्धिते अङ्गस्य अचामादेः वृद्धिः
षाड्+मातुर्+अ	झलां जशोऽन्ते	8.2.039/0084	पदान्तस्य षस्य जश्त्वेन डः
षाण्मातुर्+अ	यरोऽनुनासिके...	8.4.045/0116	डकारस्य अनुनासिको णकारः
षाण्मातुर+स्	स्वौजसमौट्	4.1.002/0183	प्रातिपदिकात् सुप्रत्ययः
षाण्मातुरर्	ससजुषो रुः	8.2.066/0162	पदान्तस्य सस्य रुत्वम्
षाण्मातुरः	खरवसानयोः...	8.3.015/0076	रेफस्य विसर्गः

Notes: षाण्मातुरः = स्कन्दः। षट् कृत्तिकाः तस्य मातरः। Cf. द्वैमातुरः

अद्य पुष्यः

A and SK: 4.2.004/1205 Source: SK. 2.345; K.3.511; BhV.230

Definition: पुष्ययुक्तेन चन्द्रमसा युक्तः कालः

पुष्य+आ+अ	नक्षत्रेण युक्तः कालः	4.2.003/1204	पुष्यशब्दात् तद्युक्तकालार्थे अण् तद्धितः
	कृत्तद्धितसमासाश्च	1.2.046/0179	तद्धितान्तस्य प्रातिपदिकसंज्ञा
पुष्य+अ	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
पुष्य	लुबविशेषे	4.2.004/1205	विशेषानवगमे अणः लुप्
पुष्य	लुपि युक्तवद्व्यक्तिवचने	1.2.051/1294	युक्तवद्भावेन पुष्यस्य पुंस्त्वम्
पुष्य+स्	स्वौजसमौट्...	4.1.002/0183	प्रातिपदिकात् सुप्रत्ययः
पुष्यर्	ससजुषो रुः	8.2.066/0162	पदान्तस्य सस्य रुत्वम्
पुष्यः	खरवसानयोः...	8.3.015/0076	रेफस्य विसर्गः

Notes: अत्र पुष्यशब्दः पुष्यनक्षत्रयुक्ते चन्द्रमसि वर्तते। तादृशचन्द्रमसा युक्ते काले अण् प्रत्ययः। कालविशेषस्य अनवगमात् कालार्थे विहितस्य अणः लुप्। लुपि प्रकृतिवत् पुंस्त्वम् एकवचनं च। यद्यपि अद्य इत्युक्ते अद्यैव, न ह्यः नापि श्वः इति विशेषोऽवगम्यते तथापि षष्टिघटिकात्मकस्य कालस्य अवान्तरविशेषस्य अनवगमात् अणो लुप् भवत्येव। पुष्ये पायसमश्नीयात् इत्यादौ तु कालवाची शब्द एव नास्ति। यदा तु अवान्तरविशेषः गम्यते तदा पौषम् अहः, पौषी रात्रिः पौषो मुहूर्तः इत्यादौ लुप् न भवति। लुबविशेषे इत्यत्र अविशेषे इति प्रसज्यप्रतिषेधः, यत्र विशेषो न प्रतीयते तत्र लुप् इति। तेन पौषः अहोरात्रः इत्यत्र

सम्पूर्णस्य दिनस्य पुष्ययोगेऽपि अहोरात्रशब्देन विशेषस्य प्रतीतेः लुप् न भवतीति कैयटः। रत्नप्रकाशकारस्तु यथा अहरित्युक्ते न रात्रिरिति, रात्रिरित्युक्ते नाहरिति विशेषो गम्यते तथा अहोरात्रः इत्युक्ते विशेषानवगमात् पुष्योऽहोरात्रः इति लुप् भवत्येवेत्युक्तवान्।

आन्तर्वेश्मिकम्

A and SK: 4.3.060/1437 Source: SK. 2.419

Definition: वेश्मनीत्यन्तर्वेश्मम्, अन्तर्वेश्मं भवम्

वेश्मन्+ङि+अन्तर्	अव्ययं विभक्ति...	2.1.006/0652	वेश्मन्-शब्देन अधिकरणवाचिनः अन्तर्-शब्दस्य समासः
	कृत्तद्धितसमासाश्च	1.2.046/0179	समासत्वात् प्रातिपदिकसंज्ञा
वेश्मन्+अन्तर्	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
	प्रथमानिर्दिष्टम्...	1.2.043/0653	अन्तर्-शब्दस्य उपसर्जनसंज्ञा
अन्तर्+वेश्मन्	उपसर्जनं पूर्वम्	2.2.030/0654	उपसर्जनस्य अन्तर्-शब्दस्य पूर्वनिपातः
अन्तर्वेश्मन्+अ	नपुंसकादन्यतरस्याम्	5.4.109/0680	अन्नन्तात् क्लीबात् समासान्तः टज्वा
अन्तर्वेश्म्+अ	नस्तद्धिते	6.4.144/0679	भस्य टेः अनः लोपः तद्धिते
अन्तर्वेश्म+ङि+ठ	तत्र भवः	4.3.053/1428	तत्र भव इत्यर्थे
	अन्तःपूर्वपदाट्ठञ्	4.3.060/1437	अन्तर्वेश्मशब्दात् ठञ् तद्धितः
	कृत्तद्धितसमासाश्च	1.2.046/0179	तद्धितान्तस्य प्रातिपदिकसंज्ञा
अन्तर्वेश्म+ठ	सुपो धातुप्रातिपदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
अन्तर्वेश्म+इक	ठस्येकः	7.3.050/1170	ठस्य इकादेशः
आन्तर्वेश्म+इक	तद्धितेष्वचामादेः	7.2.117/1075	ञिति तद्धिते अङ्गस्याचामादेः वृद्धिः
आन्तर्वेश्म्+इक	यस्येति च	6.4.148/0311	तद्धिते भस्य अवर्णस्य लोपः
आन्तर्वेश्मिक+स्	स्वौजसमौट्	4.1.002/0183	प्रातिपदिकात् सुप्रत्ययः
आन्तर्वेश्मिक+अम्	अतोऽम्	7.1.024/0309	नपुंसकात् सोः अमादेशः
आन्तर्वेश्मिकम्	अमि पूर्वः	6.1.107/0194	अमि पूर्वरूपमेकादेशः

Notes: अन्तर्वेश्मशब्दः अन्तःपूर्वपदः अव्ययीभावः। नपुंसकादन्यतरस्याम् 5.4.109/0680 इति वैकल्पिकः समासान्तष्टच्। टजभावपक्षे अन्तर्वेश्मन्-शब्दात् ठञ्। अन्तर्वेश्मन् + इक इति स्थिते नस्तद्धिते 6.4.144/0679 इति टिलोपः। अन्यत्सर्वं तुल्यम्। अव्ययीभावश्च 1.1.041 / 0451 इत्यव्ययत्वेऽपि अव्ययादाप्सुपः 2.4.082/0452 इति समासात्पूर्वमेव सुपो न लुक्, नाव्ययीभावादतोऽम्त्वपञ्चम्याः 2.4.083/0657 इति निषेधात्। अमादेशस्तु न, भाविना समासलुका बाधात्।

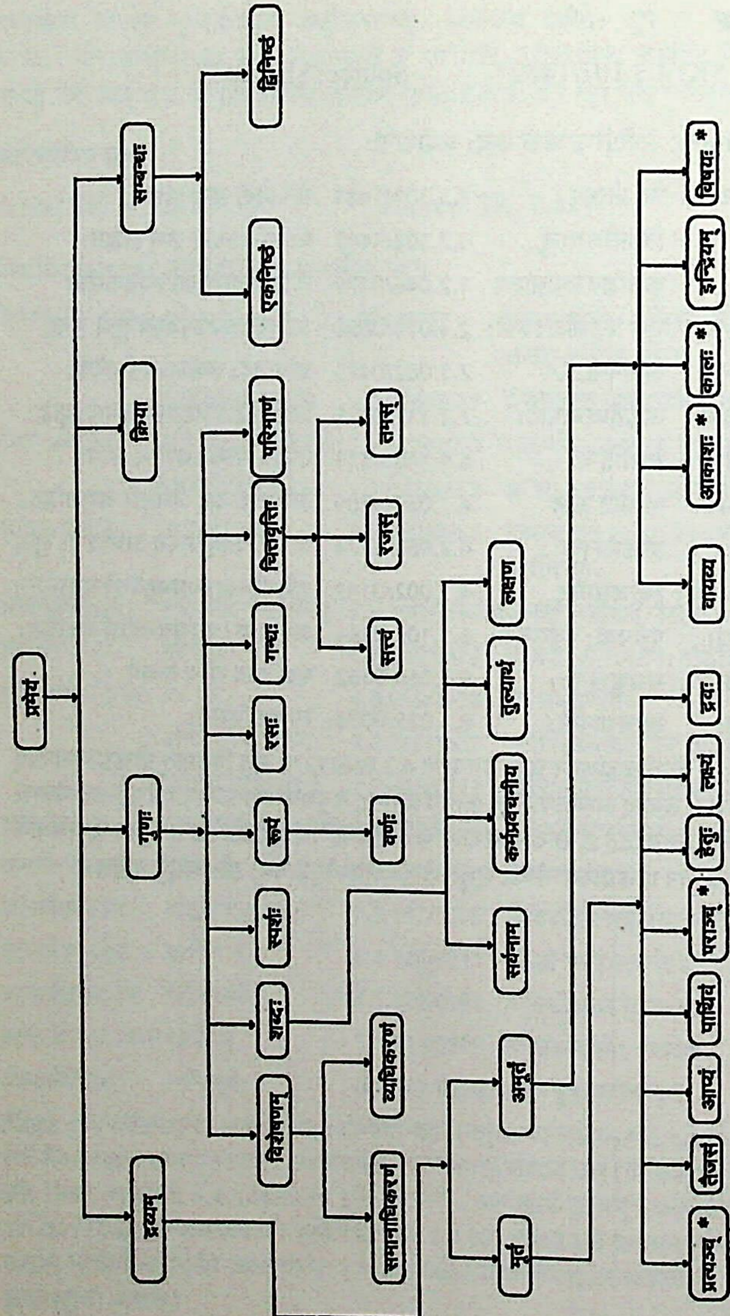
तैत्तिरीयाः

A and SK: 4.3.102/1482 Source: SK. 2.432

Definition: तित्तिरिणा प्रोक्तं छन्दः अधीयानाः

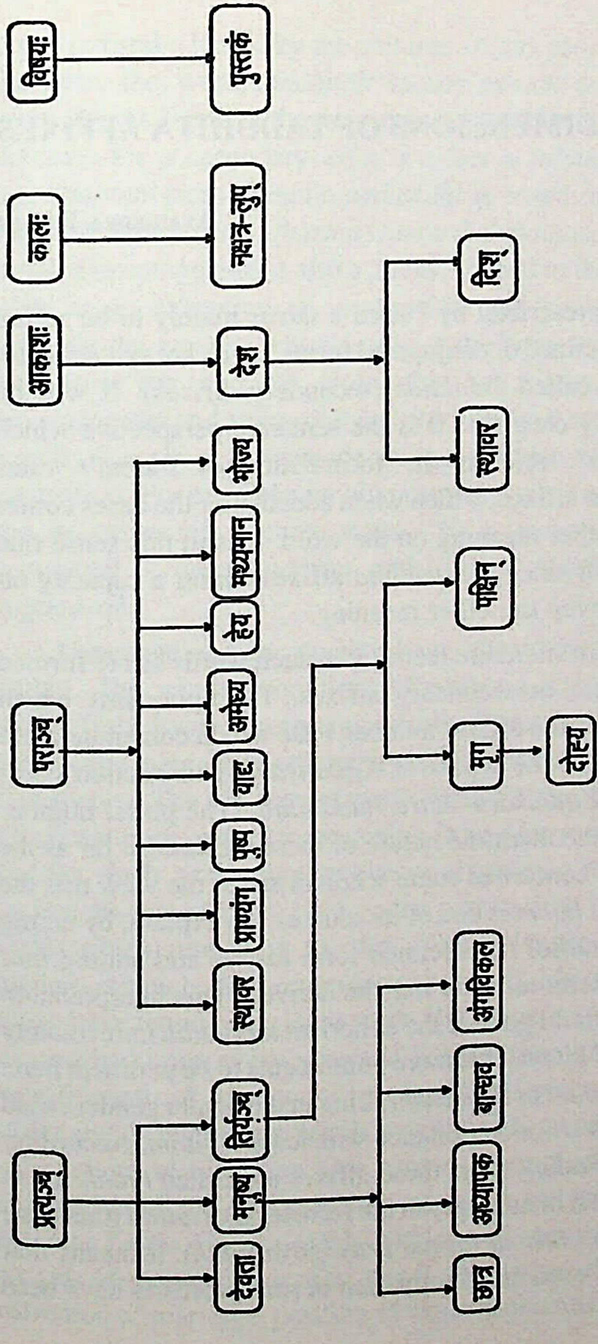
तित्तिरि+टा+छ	तेन प्रोक्तम्	4.3.101/1481	तेन प्रोक्तं छन्द इत्यर्थे
	तित्तिरिवरतन्तु...	4.3.102/1482	तित्तिरिशब्दात् छण् तद्धितः
	कृत्तद्धितसमासाश्च	1.2.046/0179	तद्धितान्तस्य प्रातिपदिकसंज्ञा
तित्तिरि+छ	सुपो धातुप्रातिदिकयोः	2.4.071/0650	प्रातिपदिकावयवस्य सुपो लुक्
तित्तिरि+ईय	आयनेयी....	7.1.002/0475	प्रत्ययादेः छकारस्य ईयादेशः
तैत्तिरि+ईय	तद्धितेष्वचामादेः	7.2.117/1075	ञिति तद्धिते अङ्गस्याचामादेः वृद्धिः
तैत्तिर्+ईय	यस्येति च	6.4.148/0311	तद्धिते भस्य इवर्णस्य लोपः
तैत्तिरीय+अ	तदधीते तद्वेद	4.2.059/1269	तैत्तिरीयशब्दात् अध्येतरि अण् तद्धितः
तैत्तिरीय	प्रोक्ताल्लुक्	4.2.064/1274	प्रोक्तार्थकात् परस्य अध्येत्रणः लुक्
तैत्तिरीय+अस्	स्वौजसमौट्...	4.1.002/0183	प्रातिपदिकात् प्रथमाबहुवचने जस् प्रत्ययः-
तैत्तिरीयास्	प्रथमयोः पूर्वसवर्णः	6.1.102/0164	अकारयोः पूर्वसवर्णदीर्घ एकादेशः
तैत्तिरीयार्	ससजुषो रुः	8.2.066/0162	पदान्तस्य सस्य रुत्वम्
तैत्तिरीयाः	खरवसानयोः...	8.3.015/0076	रेफस्य विसर्गः

Notes: 1. छन्दोब्राह्मणानि च तद्विषयाणि 4.2.066/1278 इति नियमात् प्रोक्तप्रत्ययान्तात् छन्दोवाचिनः शब्दाद् अध्येत्रर्थप्रत्ययं कृत्वैव प्रयोगः, न पृथक् स्वातन्त्र्येण। प्रोक्तान्तादध्येत्रणः लुग्भवतीति त्वन्यदेतत् 2. छन्दोब्राह्मणानि च तद्विषयाणि 4.2.066/1278 इत्यत्र अनन्यभावे विषयशब्दः तेन प्रोक्तप्रत्ययान्तेभ्यः सुबुत्पत्ते पूर्वमेवाध्येतृप्रत्ययः इति तत्सूत्रे नागेशः।



Appendix - Preliminary Ontology of *DESIKA* - पदार्थविभागः दैशिकः - संस्कृत व्युत्पत्ति साधकः

*** marked items contd .. in next page**



Appendix - Preliminary Ontology of ***DESIKA*** .. Contd from previous page

SEMANTIC DIMENSIONS OF TADDHITA AFFIXES

AVANINDRA KUMAR

THE AFFIXES prescribed by Pāṇini's *sūtras* mainly to be added after the declined or conjugated forms which are syntactically compatible are called *taddhitas* (secondary affixes). It will be made abundantly clear that it is the semantic perspective which played a major role in the formulation of Pāṇini's rules prescribing these affixes, which when added after the bases confer a special or another meaning on the word. It is in this sense that *taddhita* is a *vṛtti* since the *taddhita* affixes confer a capacity on the word to convey the other meaning.

The Sanskrit literature teems with such words as are formed with the *taddhita* or secondary affixes. The aphorisms which prescribe the *taddhita* affixes number 1108 which constitute more than one-fourth of the whole of *Aṣṭādhyāyī*. This section commences with the *adhikāra- sūtra* '*taddhitāḥ*'. The plural number is indicative of the manifold nature of these affixes. So far as the term *taddhita* is concerned some scholars are of the view that the aphorism *tasmai hitam* is one of its sources. To explain, by taking the basic form *tad* of the declined form *tasmai* and adding *hita* from *hitam* the term *taddhita* may be derived. This interpretation would certainly hold good if the aphorism *taddhitāḥ* immediately preceded *tasmai hitam*. One more point seems to be pertinent here. The word *taddhitam* or *taddhitāni* being in the neuter gender could be considered to be in consonance with *tasmai hitam*. According to Nāgeśa and *Padamañjarī* these affixes are called *taddhitas* as they are beneficial or auxiliary in the formation of *tattad* (that that) particular usage (*tasmai tasmai prayogāya hitāḥ*). It means that these affixes are used in the formation of such words as have been

approved and adopted by the cultured (*śiṣṭa*) people. I personally feel that the word *taddhitāḥ* means *tasmāt tebhyo vā hitāh* (*vihitāh*). As I said at the very outset, *taddhita* is a *padavidhi* as the base for a secondary affix is either a *subanta* or a *tiṅanta* (*suptiṅantam padam*) and a *padavidhi* is based on a *samartha* = *saṅgatārtha* = *sambaddhārtha* (*samarthaḥ padavidhiḥ*). Although *samāsa* (a compound) is also a *padavidhi* and in that case *taddhita vidhi* is an exception to *samāsavidhi* yet it does not wholly preclude the *samāsa*, which is due to the borrowing (*anuvṛtti*) of *anyatarasyām* and *vā* from the aphorisms, *devayajñi.... anyatarasyām* and *samarthānām prathamādvā* respectively. This would also allow a sentence in the absence of a *taddhitānta* expression. For example, an offspring of *upagu* (*upagorapatyam*) can be expressed in three ways - (i) a *upagorapatyam*, (ii) a compound - *upagvapatyam* and (iii) a *taddhitānta* form - *aupagavaḥ*.

Language and the society have always been closely connected. The words connoting different aspects of the worldly affairs (*lokajīvana*) are grammatically formed and used. Words remain as a memorial to the earstwhile institutions prevalent in the then society. The life-span of words varies. There are many words, which are born and after remaining in use for sometime become archaic. Such words like architectural remains reminding us of ancient meanings throw light on the past society. There are some words which remain in use for a much longer period. Pāṇini studied minutely his contemporary social life through words which have found place in his work. It is in these *sūtras* that Pāṇini has touched upon every aspect of life whether it is the scientific classification of names of geographical places or units of settlement or interesting details regarding the social life, manners and customs of his times. One cannot but appreciate his minute observation of the characteristics of social and economic life in different fields. He also deals with various sections of society, systems of social organization, that is, the system of four *āśramas*, institution of marriage, position of women, classification of foods,

drinks etc. The secondary affixes also point towards an evidence of early investigation and nomenclature of important diseases and also of indentification of many useful herbs which pharmaceutical research in that age employed to fight disease. Besides, other areas of human life such as agriculture, flora, fauna, arts, crafts and education also find place in this section of the *Aṣṭādhyāyī*. I shall now dwell upon some examples to illustrate the semantic dimension of Pāṇini's *taddhita* affixes -

(i) *Janapada* is an important geographical term used by Pāṇini. It was both a state and a cultural unit. Its cultural aspect counts more. The citizens of the same *janapada* were called *sajanapadāḥ* (V.3.85). Pāṇini mentions both the *Vedic* form *gandhārī* as the name of the *janapada* and its people in *sūtra* IV.1.169 and its later form *gandhāra* in the *gaṇas* to IV-2-133 and IV.3.93. *Gandhāra* extended from the Kābul valley to Takṣaśilā. Two towns of Gandhāra are mentioned, viz., Takṣaśilā, its eastern capital, and Puṣkalavatī, the western. The latter occurs in a *gaṇa* as the name of a river on which the town stood. The *puṣkalas* of *Mārkaṇḍeya Purāṇa* must be people of this region. The country between the rivers Suvāstu and Gaurī was known as *uḍḍīyāna* which Kātyāyana mentions as Aurdāyana (Mbh. IV-2-99). It was considered in ancient days a part of Gandhāra. A special variety of blankets known as *pāṇḍu-kambala* (IV-2-11) was a product of Gandhāra. Besides, *Brāhmaṇaka* is mentioned in Pāṇini's *sūtra* V.2.71. Patañjali definitely calls it a *janapada* (*Brāhmaṇako nāma janapadaḥ* - II.2.98). The significance of its name is brought out by Kāśikā which describes it as the land of Brāhmins, who were *āyudhajīvins* or followers of military art (*yatrāyudhajīvino brāhmaṇāḥ santi*). Their military traditions continued upto the time of Alexander whose invasions they resisted with a patriotic heroism. The Greeks call them Brachmanoi and locate them in middle Sindh, of which the capital still called Brāchmaṇabāda. It may be noted that even Rājaśekhara (A D 900) names *Brāhmaṇavāha* (abode of Brāhmaṇas) as one of the *janapadas* of the west. The Muslim geographers called Brāhmaṇabāda as Brāhmaṇwa after

this old tradition. It may be noted that Patañjali mentions two formations a Brāhmaṇaka and a Vṛṣalaka as names of countries corresponding to Śaudrāyaṇa (*śūdra* country) and Brāhmaṇaka respectively.

(ii) A.V.3.116 refers to *trigarta-ṣaṣṭha*, a confederation of states as *āyudhajīvī sangha*. The Trigarta country, although itself marked out by natural boundaries from the rest of the province, was partitioned into smaller territorial divisions or *janapadas*. The name Trigarta denotes the region drained by the three rivers, Rāvī, Beās and Sutlej and corresponds to the Jalandhar group of States which had retained their geographical identity. *Jālandharāyaṇa* is mentioned in the *rājayādi gaṇa* (IV.2.53). The central portions of Trigarta formed by the valley of the Beās was also named Kulūta now known as Kullū. Its ancient capital was at Nagara on the Beās, a name included in the *kattryādigaṇa* (IV-2-95). *Maṇḍamau* (*yavādigaṇa* VII.2.9) was perhaps modern Maṇḍī, lying to the south of Kulūta. Pāṇini makes special mention of the *bhargāyaṇa gotra* in the *Trigarta* (IV.1.111) likewise *Sālva* (VI.2.135), *Sālveya* (IV.1. 169) and *Sālvāvayava* (IV.1.173) may be looked into and compared from this semantic perspective.

(iii) Friendship is a social phenomenon: Pāṇini calls a friend *sakhi* V.1.126 or *mitra* V.4.50 and friendship– *sakhyaṃ* (*sakhyuḥ bhāvaḥ karma vā*) V.I.126. He marks out a friend by his goodness of heart and the enemy by its wickedness (*suhṛddurhṛdau*... V.4.150). Friendship to last for a lifetime is called *ajarya*. In the *sūtra* V.2.22 Pāṇini puts his seal of approval on the basic principle of friendship so often quoted in Sanskrit literature. Friendship is called *sāptapadīna* because it is accomplished through seven steps. In the *Atharvaveda*, Atharvā calls Varuṇa his *saptapada* friend. The *Mahābhāṣya* also repeats the conception of *saptapada* friendship. We find the full explanation of *saptapada* in the *saptapadī* ritual of marriage as given in the *gṛhyasūtras*, where the bridegroom makes the bride his friend by repeating seven formulas beginning with *iṣ* and *ūrj*. The conception symbolized by the outer form of taking seven steps appears to be very old.

(iv) Pāṇini refers to the custom of giving food to a domestic servant as part of his wages fixed by customs (*niyukta* IV.4.66). This practice was so widely prevalent that special terms were used to indicate it, e.g., a servant who got cooked rice as his remuneration everyday was called *odanika* or *bhāktika* (*odanikī* for a female servant). According to Pāṇini, the customary payments of food to domestic servants were of obligatory nature. (*tadasmai dīyate niyuktam* IV.4.66). The affix *ṭhak* is to be added after the name of food which is to be given as a customary payment. The word *niyukta* comes from *niyoga* which Patañjali explains as a legal obligation like a debt. For example, if one engaged a servant for a *paṇa* per day, the *paṇa* was a *niyukta* charge, the payment of which at the end of the day was obligatory. In actual rural economy there has always existed the custom of giving a portion of the mid-day meal to certain domestic servants and menials like the scavenger and the water carrier. Their daily wages in respect of the services rendered to various families consist only of food articles which they are required to collect in the course of the day from the houses served by them. The village *Brāhmaṇa* also by virtue of his privileged position as *purohita* gets a portion, which is referred to in the illustrations *Agrabhajanika- Agre bhajanam asmai niyuktam dīyate* (Kāśikā). In this case the members of the household can't partake of their food unless *agrabhajana* has been set apart. It must be noticed that this supply of food (*niyukta bhakṣa*) is part of the stipulated wages for which a servant is employed.

(v) Pāṇini was quite familiar with the system of *āśramas*. The institution of *brahmacarya* was known to Pāṇini in its full development. He refers to educational institutions known as *caraṇa* or Vedic schools devoted to the study of some major recension (*āmnāya*) of the Vedas together with its accessory and subordinate literature (IV.3.126). The Brahmacārins congregated for the study at a *caraṇa*, which was run under the direction of one great teacher or Vedic exponent. From the manner Pāṇini's reference to this organization, it appears that the Brahmacārins

looked upon their *caraṇa*, as their *alma mater* and were attached to it by permanent bonds of common fellowship with other members of the same school, all distinguished as *sabrahmacārins* (*caraṇe brahmacāriṇi* - VI.3.86). The growing distinction of the religious students is indicated by the emergence of a new word *varnī*, unknown in the *Samhitās* and *Brāhmaṇa* literature. Pāṇini explains it as a synonym for *Brahmacārin* (*varṇād brahmacāriṇi*, V.2.134). According to Kāśikā the students of only the three upper classes (*traivarṇika*) were called *varṇīs*. Moreover, there is a general rule by which the student was to be named after the special circumstances of study (*tadasya brahmacaryam*, V.1.94). The maximum period of studentship is stated by Kātyāyana to be 48 years, the study concerned being called *aṣṭacatvārinśakaḥ*, *aṣṭacatvārinśī*. Besides the studentship for fixed periods, there were occasional studentship for shorter terms, e.g. students for half a month *ardhamāsika*, *māsika*, *sāmvatsarika* instanced by Kāśikā.

(vi) *Chātra* (*chatrādibhyo ṇaḥ* IV.4.62). The word, still means a student and has since been used in this sense. The etymological explanation *chatram śīlamasya* that Pāṇini has given in the context of this word is significant. Accordingly, the *taddhitānta* word *chātra* is the one who covers the faults of one's teacher like an umbrella. (*gurukāryeṣvahitastachidrāv-arṇapravṛttaśchatraśīla śiṣyaschātraḥ*). It means that studentship consists in attentively carrying out the orders of the teacher and also in covering the shortcomings of the latter.

(vii) *Pāṇinīyam*: The words is formed with the addition of the affix *cha*. It connotes *upajñā*, *upajñāta* or *ādyācikhyāsā* which further means that the person after whose name the affix has been added is the first narrator or expositor of a particular branch of knowledge.

(viii) *Prāthamika* : Pāṇini seems to take *prathama* as the name of a book. It has also figured in *vasantādigaṇa* (IV.2.63). But it has not been traced so far in this sense in literature. In lexicons the meaning of the word is the popular one— foremost,

first, earliest, primary, original, prior, former, preceding, initial, chief, principal and the most excellent etc.

Patañjali at one place (*Mbh.*1.3.39 VI.15) has addressed Pāṇini as *vṛttajña ācārya*. It implies that Pāṇini knew the relationship of words with their meanings, affixes which are added after words to express certain meanings and the changes (*guṇa* or *vṛddhi*) that occur in word-forms. A word in its plain form contains a meaning. When we want some special or additional meaning, we add an affix. An affix when added after a word starts conveying a new meaning. For example the word *varṣa* means 'a year'. An incidence or activity which happens 'once a year'— to express it, we form a new word *vārṣika*. The affix *ṭhak* (*ika*) combined with *varṣa* expresses a new meaning, that is, 'happening/occurring in a year'.

As is clear from the illustrations of secondary affixes given in foregoing, Pāṇini was extensively informed about men and things. He collected a multitude of words and created his own material, making minute observations of facts while composing his *Aṣṭādhyāyī*. We find in Pāṇini organism and life, an elastic and warm-hearted approach to the speech of common people bringing in a vast and varied material about their life. A closer study of *taddhita* affixes reveals how Pāṇini had explored and exploited all possible sources of linguistic material in the country including dialects, folklore, local customs, sports, names of coins, weights and measures. His recording of the differences in the accentuation of names of wells situated on the right and left bank of the river Beās (*udakca vipāśaḥ*) is a true pointer to his painstaking method, on which the author of Kāśikā observes : The *sūtrakāra* was endowed with deep and subtle insight : *mahatī sūkṣmekṣikā varttate sūtrakārasya* - IV.2.74.

(My thanks are due to Late Dr. V.S. Agrawal and Dr. Kanshi Ram, Reader in Sanskrit at Hans Raj College, Delhi)

SEMANTIC PREDILECTIONS OF PĀṆINI

(WITH SPECIAL REFERENCE TO COMPOUNDS)

M. Srimannarayana Murti

Knowledge of knowledge in the final analysis is nothing but classification. A great deal of attention was paid to the logical analysis of knowledge by all the systems of Indian Philosophy. Pāṇini is no exception and to be more precise, Pāṇini is concerned with the ways of unambiguous knowledge representation through language.[1] We try to understand his logic by the analysis of his rules; for, the linguistic methods to describe the output of language users also apply to the language of the grammarians.[2] So the grammarian's rules also become the target language as much as the users' language for the structural analysis into linguistic units such as sentence, compound, word, morpheme and phoneme. The analysis of Pāṇini's rules appeared for the Indian grammarians to be offering precise formulations of obviously psychological units as letters, words, sentences and so on. Therefore emerged in course of its development such units like *varṇa-sphoṭa, pada-sphoṭa, vākya-sphoṭa,* and so on and got amplified in the writings of a lot of commentators and interpreters.

We find a sort of selection restriction concerning the order of rules and choice of words in relation to the other words within a rule and also within a group of rules. The grammatical tradition does not allow any assumption of nonexistence of such restrictions in the rules, perhaps even in the users' language. Selection restriction brings syntactic and semantic constrains. The syntactic constrains operate mainly in the formulation of rules relating to the secondary derivatives and compounds and also with regard to the groups of rules.

Understanding the knowledge of the speaker through communication in the final analysis rests on the listener. The foundation of the communication system is on the logic behind categorization of knowledge before it is translated into series of speech sounds. Arraying of vocables into various meaningful speech units is of course a quick process done by analogy. So as Bhartṛhari says,[3] the grammarians opine that the classification of language into sentences, words and sounds is nothing but the analysis of language. There are only two alternatives for the analysis of language. One method is to view the sentence as an indivisible single unit in correspondence with the unitary nature of the thought communicated with it. The other is to view the sentence as a physical body containing a concatenation of several vocables in correspondence with the diversity of vocables from the point of view of the physiological form of language. There is no third alternative.[4] Indeed these unity and diversity methods are not exclusive, but they are mutually dependent in the communication and cognition of language.[5] Just as *jāti* 'universal' cannot operate without *vyakti* 'individual (substance)', and vice-versa,[7] the semantic considerations and phonological constrains cannot hold water independently. Here prevails a choice of preference. Therefore Pāṇini's rules can be understood and interpreted from the semantic as well as phonological points of view. Here the psychological considerations preponderate with reference to the speaker while the phonological considerations precede with reference to the listener.[6] This is the core of grammarians as is evident in the case of manifestation of *sphoṭa*, comprehension of *pratibhā* and the cognition of *jāti* and *vyakti*. This is testified by the rules related to compounds.

Technical names, conditions governing composition, changes in the first and the second members, phonemic and phonological changes of the sound elements, and the accent— the suprasegmental phoneme, constitute the areas of compound formation. The technical names *samāsa*, *tatpuruṣa*, *karmadhāraya* and *bahuvrīhi*, the rules like *samarthaḥ padavidhiḥ* (2.1.1), *viśeṣaṇaṃ viśeṣyeṇa*

bahulam (2.1.57), *anekam anyapadarthe* (2.2.24) fall certainly within the psychological process of compound formation.[8] While *kāraka* is a theory of syntactical relation governing expectancy and mutual relationships of word, *samāsa* is a fine product arising out of such relationships. Therefore Pāṇini considered *kāraka* and *samāsa* as falling under one broad category and hence put them together in the section of *ekasaṃjñādhikāra*.[9] The long commentary offered by Kātyāyana and Patañjali on the *sūtra samarthaḥ padavidhiḥ* (2.1.1.) pin down the line of argument to be semantic. Otherwise the enunciation of *asamarthasamāsas* by Pāṇini[10] and Patañjali do not stand valid. Further to avoid analogical extension too far in the semantic field so as to save the listener from missing his speaker's intentions, restriction was imposed that *gamakatva* alone cannot be enough to validate a compound as regular.[11]

It is the semantic and syntactic relations that make the compounds regular. Hence Patañjali postulated the existence of a semantic background for the grouping of compounds into four classes (namely *avyayībhāva, tatpuruṣa, bahuvrīhi* and *dvandva*).[12] The deviations stand as departures from orthodox semantic rules and remain as exceptions. The exceptionality is of course obtained by phonological considerations.[13] Pāṇini gave a sanction for a happy blending of the semantic and phonological features. So to achieve maximum advantage of flexibility, Pāṇini resorted to the technique of *adhikāra* under the section of *ekasaṃjñādhikāra*, wherein concourse of different *saṃjñās* is effected or avoided at the option of the author through adaption of precise syntactic rules.

The rule *samarthaḥ padavidhiḥ* (2.1.1.) gives a nodal principle governing all types of compounds as a single class in contradistinction to *kṛts* and *taddhitas*. The competency, whether it is *vyapekṣā* or *ekārthībhāva*, is indeed a predisposing semantic constrain to overall formation of compounds of any type. *Vyapekṣā* is based on sequence (*krama*) and *ekārthībhāva* on simultaneity (*yaugapadya*).[14] The rebellious exceptions falling outside the semantic or syntactic domains are formed into subgroups and enveloped under the/wrap of *adhikāra*.[15] For example forms like

śastrīśyāmā (*kanyā*) and *haṃsagadgadā* formed by the rule *upamānāni sāmānyavacanaiḥ* (2.1.55), might not fit very well in the class of *karmadhāraya*, but were brought under this class because of phonological considerations.[16] Therefore Pāṇini evolved a complex system by blending the semantic and morphological nuances to explain the cognitive function of the language in general and compounds in particular.

The semantic predilections of Pāṇini are ostensible in the distribution of vocabulary into fields.[17] For example a sample survey of the rules ordaining singular number to certain *dvandva* compounds in 2.1.2-16 reveals the classification of the vocabulary in the following fields:

Animate and inanimate objects constitute the main fields. The animate field comprehends three subfields of human beings, animals and plants. The subfield of human beings comprises of the following subfields: religious *śākhās*,[18] rites in different *śākhās*, [19] education system comprising of different courses in curriculum,[20] caste system including professional castes,[21] army ranks and cadres,[22] sentiments and feelings,[23] amusements and musical instruments,[24] food and drinks,[25] and parts of body.[26] The animal subfield constitutes of its subfields: wild animals,[27] domesticated animals and milk products,[28] inferior animals[29] and animals of permanent rivalry.[30] The subfield of plant kingdom embraces the subfields: trees,[31] grasses[32] and grains[33] The inanimate field covers the subfields of places of habitations,[34] objects used in household,[35] regional directions,[36] rivers[37] and mountains.[38]

These fields are again not exclusive as much as the members in the field. They are graded similar to that of colours in a spectrum. Just as the colours violet, indigo and blue are mutually related, the fields and also the members in a field are mutually related in various degrees through their associativity with actions and characteristics common to them.[39] In the absence of associativity a member in a group becomes incommensurable with a member of the same group or of another field. Therefore, it becomes incumbent on the part of the grammarian to array his *sūtras* or various words in a *sūtra* keeping in view of associativity

for grading. Therefore, as Helārāja observes, a mustard seed cannot be compared with a mountain.[40] But a bull can be compared with a *gavaya,* which possesses all the characteristics of a bull excluding the dewlap.[41] Speaking with special reference to compound, Bhartṛhari says that it is only that combination which fall in the same field gets a new capacity to denote a sense over and above the referents of the constituents. For example the negative compound *abrāhmaṇa* denotes a *kṣatriya* because they fall in the same field. So the grammarians justify by saying that the compound *abrāhmaṇa* is used in a case where a *kṣatriya* is mistaken to be a *brāhmaṇa*; for, the former possesses all the characteristics of the latter excluding brāhminhood, so by exclusion, the compound denotes a *kṣatriya.*[42]

Now Patañjali hits on the interdependency of meanings of words. The meaning of a word is determined by grammatical connections with other works. It is only in the presence of the meanings of other words, that the meaning of a word is restricted and determined precisely after the grammatical connections.[43] Three alternative theories are held, namely exclusion (*bheda*), inclusion (*saṃsarga*) and exclusion-inclusion (*bheda-saṃsarga*).[44] According to the theorists of exclusion, the word *rājñaḥ* denotes all the possessions of the king like servant, wife and house, and the word *puruṣa* denotes all those persons who could be the masters of the man. In a sentence like *rājaḥ puruṣaḥ* both the referents are grammatically connected through mutual expectancy and the referent of *rājan* eliminates the *puruṣa* from the association of other masters except the king, while the referent of *puruṣa* eliminates the association of *rājan* with other possessions except *puruṣa.* In the same way in the compound *rājapuruṣa* both the members determine each other and denote the same thing. In this thought the individual is taken as the meaning of the word. The theorists of inclusion (*saṃsarga*) hold the *puruṣa* denotes the universal (jāti of 'manhood', the association of *rājñaḥ* determines the man as associated with the king alone. One can have both the exclusion and the inclusion operating in the determination of meaning. But the determination of the meaning of a word set in

a grammatical relation cannot be denied and thus the meanings of words are relative and not absolute.

In essence the intention of the speaker is the determinant of the purposiveness of words pronounced.[45] The speaker selects his expressions commensurating with his thoughts. Incompetency of the speaker and the listener is a formidable barrier. Wrong selection of words results in wrong communication. Now the speaker has to change his expression or the listener has to search for other means to reach the speaker's intention.[46] So to help the listener and speaker lists of words arranged in fields came to be evolved.

Arrangement of words into fields was a very well developed system as is known from the magazines of words like *Vedalakṣaṇas, Nighaṇṭus, Dhātupāṭhas, Gaṇapāṭhas,* and *Ākṛtigaṇas*. The *śabdapārāyaṇa* mentioned by Patañjali should fall under this category. The magazines of words lay down some standard correct usages for ready use, from which the user selects to the best of his choice. The *Amarakośa* is the earliest extant comprehensive example of categorization of words into fields. Patañjali considers that grammar is more superior and advantageous tool than the *śabdapārāyaṇa* to understand use-worthy words in religious places and among elite.[47] Even though the end target is the same, grammar differs in the operative system from the word magazines. Grammar takes into consideration of cognitive processes, with the models of language behaviour on the basis of certain theoretical assumptions as known from the meta-rules. So a grammatical rule predicts a certain sequence of words with certain semantic constrains as a valid utterance in a language.[48] As the rules are to be operated by the speaker when producing a sentence, the correctness of sentence depends upon the linguistic competence of the speaker. In the absence of a speaker as in the case of scriptures the *śabda* alone is the means and the meaning of the *śabda* is the final authority. It is the listeners's doubt regarding the scriptural language, which compelled for the emergence of grammar.[49] Patañjali illustrated explicitly his statement:

śabdapramāṇakā vayaṃ yac chabda āha tad asmākaṃ pramāṇam. śabdaś ca śabdajñāne dharmam āha,[50] wherein the intended meaning of *śabda* is scripture or a scriptural passage like *ekaḥ śabdaḥ samyag jñātaḥ śāstrānvitaḥ suprayuktaḥ svarge loke kāmadhug bhavati.*[51]

Patañjali touches upon a vital issue connected with the role of grammar, namely naturalism of denotativeness of words. An artificial language in which meanings are attributed by grammatical rules cannot survive by itself. It is because in the cultural history of the society the language undergoes change and meanings of many words of a given time cannot be known in another time. So the grammar does not aim at instructing meanings of words.[52] Instead the grammar helps to decide the correct words commensurating with the intention of the speaker.[53]

Therefore clearance of doubt or obtainment of knowledge leads to *dharma*, the goal of *vyākaraṇa*. There cannot be any word without a sense.[54] As the meanings of words are learnt by analysis of language through the application of rules the *sūtra-pāṭha* is called *vyākaraṇa*,[55] in contrast to *dhātu-pāṭha* and *gaṇa-pāṭha*. When the *sūtras* are called *vyākaraṇa*, for the word *vyākaraṇa* is a nomenclature for both the rules and the illustrations. Further Patañjali observes that *vyākaraṇa* was the last component course in the curriculum of Vedic studies; it is to be read after the Veda and the auxiliary sciences like *prātiśākhya* and *śikṣā*.[56] So at least from the point of view of Patañjali, Pāṇini's *sūtras* are to be interpreted from the semantic point of view.[57] Perhaps by the influence of word-magazines, the grammatical analysis also came to be viewed as independent of semantics.

Interpretation of Pāṇini's rules from the point of view of semantics strengthens the modern view that the vocabulary of a language is not a mere agglomeration of unrelated and independent items but is organized. It may also help to structure the meaning in the same way as phonological and morphological structures of language and also to historicize the semantic theories of Indian Philosophical schools.

References

1. *na so'sti pratyayo loke yaḥ śabdānugamād ṛte*
anuviddham iva jñānaṃ sarvaṃ śabdena bhāsate
Vākyapadīya (=*VP*), 1.131.

The *vārtikas* hint that the text tradition of the *Aṣṭādhyāyī* underwent many changes resulting in the emergence of verses, at least for different portions of it (see my article: 'Two Versions of the Ekasaṃjñādhikāra', *S.V.U. Oriental Journal*, XII.1971). Existence of a tradition to interpret rules of Pāṇini from semantic point of view is evident from the *Mahābhāṣya* and the *Vākyapadīya* (see my article: 'Ekasaṃjñādhikāra in the *Aṣṭādhyāyī*, *S.V.U. Oriental Journal*, X, 1967). Therefore it is indispensable to begin the inquiry into the meaning of rules in the light of the *Mahābhāṣya* and the *Vākyapadīya*.

2. Cognition of language comprises of the cognition of the vocables in the utterance and the cognition of the referents of the vocables and of the sentence. In recognition of this hierarchy Pāṇini read the rule *svaṃ rūpaṃ śabdasyāśabdasaṃjña* (1.168). The same process holds water even in the case of the rules of Pāṇini himself. See for details my article: 'Bhartṛhari on svaṃ rūpaṃ śabdasyāśabdasaṃjñā', *Adyar Library Bulletin*, 44-45, 1980-81.

3. *cf. arthabhāgais tathā teṣāṃ antaro' rthaḥ prakāśyate/*
ekasyaivātmano bhedan śabdārthāv apṛthak sthitau//
VP. 2. 31

4. *dvāv apy upāyau śabdānāṃ prayoge samavasthitau/*
kramo vā yaugapadyaṃ vā yau loko nātivartate//
VP.2. 467.

5. *bhedenādhigatau pūrvaṃ śabdau tulyaśrrutī punaḥ/*
tantreṇa pratipattāraḥ prayoktrā pratipāditaḥ//
VP. 2. 475.

See also
kramān na yaugapadyasya kaścid bhedo' sti tattvataḥ/
yathaiva bhāvān nābhāvah kaścid anyo' vasīyate//
VP. 3.3 (*Sambandha*). 84.

However for illustration of the operation of the grammatical rules, the rules can be interpreted either from the *krama* or *yaugapadya* points of view. Thus it has become customary for the commentators to examine how a given rule holds good according to each view. This resulted in the divergence of two schools of grammarians called *svābhāvika-pakṣa* 'naturalist school' and *vācanika-pakṣa* convention school'. See my article: 'Bhartṛhari on *viśeṣaṇānāṃ cājāteḥ* of Pāṇini', *SV.U. Oriental Journal*, XV, pt. 1,1972.

6. This duality of language structure is epitomized by Bhartṛhari:

> *śabdaḥ kāraṇam arthasya sa hi tenopajanyate/*
> *tathā ca buddhiviṣayād arthāc chabdaḥ pratīyate//*
> *VP*. 3. 3. 32.

Helārāja's annotation is very significant on this verse: *tathā hi buddhau śabdārthayoḥ pūrvam abhedenāvasthānam..... ata eva sthānakaraṇavyāpārād abhivyakto' rthasvarūpaśabdaḥ śrotṛbhir avadhāritas tathaiva svarūpācchuraṇayārtham avagamayati, Prakīrṇaprakāśa*, on *VP*. 3.3.32.

7. See my article : 'A Note on the Ekaśeṣa', *S.V.U.Oriental Journal*, XIV, pt. 2, 1971, pp. 94-98.

8. See my monograph, *Sanskrit Compounds- A Philosophical Study*.

9. *Pāṇ* 1.4.23 to 1.4.56 (*kāraka*); 2.1.3. to 2.2.38 (*samāsa*).

10. Pāṇini uses an *asarmarthasamāsa* in the rule 1.1.43: *suḍ anapuṃsakasya; asamarthasamāsaś cāyaṃ draṣṭavyo napuṃsakasyeti. na hi naño napuṃsakena sāmarthyam*, *MB*.1.1.43.

11. *avaśyaṃ kaśyacin nañsamāsasyāsamarthasamāsasya gamakasya sādhutvaṃ vaktavyam. asūryampaśyāni mukhāni apurgeyāḥ ślokāḥ aśrāddhabhojī alavaṇabhojī brāhmaṇaḥ 'suḍ anapuṃsakasya'* (1.1.43) *ity etanniyamārthaṃ bhaviṣyati. etasyaivāsamarthasamāsasya nāñsamāsasya gamakasya sādhutvaṃ bhavati nañyasyeti*, *MB*.2.1.1, p.361 (Keilhorn edn.). See also 1.1.43, p.101.

12. Patañjali raises a doubt as to why there is no *avyayībhāva-samāsa* in the compounds *sumadrāḥ, sumagadhāḥ* and settles the issue:

iha kasmān na bhavati sumadrāḥ, sumagadhāḥ, saputraḥ, sacchātra iti, samṛddhau sākalya iti ca prāpnoti naisa doṣaḥ iha kaścit samāsaḥ pūrvapadārthapradhānaḥ kaścid uttarapadārtha-pradhānaḥ kaścid anyapadārthapradhānaḥ kaścid ubhayapadārthapradhānaḥ, pūrvapadārthapradhāno' vyayībhāvaḥ, uttarapadārthapradhānastatpuruṣaḥ anyapadārtha-pradhāno bhuvrīhiḥ ubhayapadārthapradhāno dvandvaḥ na cātra pūrvapadārthaprādhāyaṃ gamyate. athavā neme samāsārthā nirdiśyante kiṃ tarhi avyayārthā nirdiśyanta ime. eteṣv artheṣu yad avayayam vartate tat subantena saha samasyata iti,MB. 2.1.6, p. 378-9.

13. Patañjali draws distinction between a *bahuvrīhi* and a *tatpuruṣa* from the points of view of both semantics and phonology. cf.

asti khalv api viśeṣo bahuvrīhes tatpuruṣasya ca. kiṃ śabdakṛto athārthakṛtaḥ śabdakṛtas cārthakṛtaś ca. śabdakṛtas tāvat. bahuvrīhau sati kapā bhavitavyam tatpuruṣe sati na bhavitavyam. arthakṛtaḥ tatpuruṣe sati ruhādīnāṃ ktaḥ bhavati dhātvarthasyānapavarge. ārūḍho vṛkṣaṃ devadatta iti. bahuvrīhau vyapavṛkte karmaṇi bhavati. ārūḍho vṛkṣo devadatteneti, MB. 2.1.24. 24, p. 384.

14. *pṛthagarthānām ekārthībhāvaḥ samarthavacanam, MB*. 2.1.1, vl.1, p. 361; *parasparavyapekṣāṃ sāmarthyam eke, ibid.* vl.4, p. 365.

Cf. *ardharcādiṣu śabdeṣu rūpabhedaḥ kramād yathā/*
tantrāt tathaikaśabdatve bhinnānāṃ śrutir anyathā//
VP.2.103. See. also my *Sanskrit Compounds*, pp. 110-136.

15. *Cf. supā ca ṣaha sup samasyate. adhikāraś ca lakṣaṇaṃ cą. yasya samāsasyānayal lakṣaṇaṃ nāstīdaṃ tasya lakṣaṇaṃ bhaviṣyati, punarutsyūtam vāso deyam, punarniṣkṛto ratha iti, MB*. 2. 1. 4, p. 378.

16. Cf. *yaḍy api tāvad vacanāt samāsaḥ syād iha tu khalu mṛgīya capalā mṛgacapalā samānādhikaraṇalakṣṇaḥ puṃvadbhāvo na prāpnoti*, *MB*. 2.1.55, p. 397. See also Haradatta's *Padamañjarī* on *Kāśikā*, 2.1.55

Even the compounds *dadhyodana* and *guḍadhānāḥ* cannot be established as regular *samāsas* with mutual expectancy between *dadhi* and *odana* and *guḍa* and *dhāna*. So the formation of the compound is to be taken as sanctioned by a rule; cf. *annena vyañjanaṃ bhakṣyeṇa miśrīkaraṇāṃ ity asamarthasamāso, yaṃ draṣṭavyaḥ kiṃ kāraṇam.... kārakāṇāṃ kriyayā sāmarthyaṃ bhavati na teṣām anyo' nyena. tadyathā. niśrayaṇyā dvābhyām kāṣṭhābhyāṃ sāmarthyaṃ na teṣām anyo'nyena. evaṃ tarhy āha annena vyañjanaṃ bhakṣyeṇa miśrīkaraṇam iti na cāsti sāmarthyaṃ tatra vacanāt samāso bhaviṣyati*, *MB*. 2. 1. 34, 35, pp. 386-387.

To justify the competency, *Kāśikākāra* holds that it is in *vṛtti* the words get competency; cf. *dadhnā upasikta odanaḥ dadhyodanaḥ kṣīraudanah. vṛttan kriyayā antarbhāvād annavyañjanayoḥ sāmarthyam*, *Kāśikā*, 2.1.34, 35. See also *VP*. 3.14 (*vṛtti*), 415-420.

17. Field is a technical name coined by the linguists who attempt at semantic structures. The language consists of several fields such as kinship, colour, etc., and semantic distinctions for each word in the field are made by the speech communities. Thus one and the same word may denote different shades of meaning in different speech communities. See my monograph, *An Introduction to Sanskrit Linguistics*, pp. 307-309.

18. *Pāṇ*. 2. 4. 3: *anuvāde caraṇānām, e.g. kaṭhakālāpam.*

19. *Pāṇ*. 2. 4. 4: *adhvaryukratur anapumsakam; e.g. arkāśva medham.*

20. *Pāṇ*. 2. 4. 5: *adhyayanto' viprakṛṣṭākhyānām; e.g. padakakramakam.*

21. *Pāṇ*. 2. 4. 10: *śūdrāṇam aniravasitānām; e.g. takṣāyaskāram.*

22. *Pāṇ*. 2. 4. 2: *dvandvaś ca prāṇitūryasenāṅgānām; e.g. rathikāśvāroham.*

23. *Pāṇ*. 2.4.13: *vipratiṣiddhaṃ cānadhikaraṇavāci; e.g. sukhaduḥkham, kāmrkrodhau.*

24. *Pāṇ*. 2.4.2: *e.g. mārdaṅgikapāṇavikam.*

25. *Pāṇ*. 2.4.12: *vibhāṣā vṛkṣamṛgatṛṇadhānyavyañjana-paśuśakunyaśvavaḍavapūrvāparādharottarāṇām; e.g. dadhighṛtam, vrīhiyavam.*

26. *Pāṇ*. 2.4.2: *e.g. pāṇipādam.*

27. *Pāṇ*. 2.4.12: *e.g. rurupṛṣat.*

28. *Pāṇ*. 2.4.11: *gavāśvaprabhṛtīni ca; e.g. gavāśvam, ajāvikam. Pāṇ*. 2.4.12; *e.g. dadhighṛtam.*

29. *Pāṇ*. 2.4.8: *kṣudrajantavaḥ; e.g. daṃśamaśakam, yūkālikṣam.*

30. *Pāṇ*. 2.4.9: *yeṣāṃ ca virodhaḥ śāśvatikaḥ; e.g. mājāramūṣakam.*

31. *Pāṇ*. 2.4.12:: *e.g. plakṣanyagrodham.*

32. ibid. *kuśakāśam.*

33. ibid. *vrīhiyavam.*

34. *Pāṇ*. 2.4.7: *viśiṣṭaliṅgo nadī deśo grāmāḥ; e.g. kurukurukṣetram.*

35. *Pāṇ*. 2.4.11: *na dadhipayādīni; e.g. ulūkhalamusale.*

36. *Pāṇ*. 2.4.12: *e.g. pūrvāparam. adharottaram.*

37. *Pāṇ*. 2.4.7: *e.g. gaṅgāśoṇam.*

38. Counter example of 2.4.7; *e.g. kailāsagandhamādane.*

39. Pāṇini uses the word *aviprakṛṣṭa* for associativity in the rule 2.4.5: *adhyanato viprakṛṣṭākhyānām*. Therefore a *samāhāra-dvandva* between *pada* and *krama* is possible because the latter follows the former in the curriculum. But such a *samāhāra-dvandva* is not possible between *yājñika* and *vaiyākaraṇa* because the two subjects, namely *yajña* and *vyākaraṇa* do not have indispensable hierarchy in the curriculum. So an *itaretayoga-*

dvandva compound alone is possible. cf. *Kāśikā* and *Nyāsa* on the above rule.

40. Cf. *yadvā yatra kiṃcit sāmānyam ityādibhāṣyasyākṣepaḥ-sarvatra padārtheṣu sāmānyaviśeṣayogād aupamyaṃ syād ity atiprasaṅgo meruriva sarṣapa ity api syāt....*, Helārāja's *Prakīrṇaprakāśa* on *VP*. 3. *vṛtti*. 397.

So also the expression *himavān iva loṣṭaḥ* cannot bring out any comparison. See my *Sanskrit Compounds*, pp. 215 and 223.

41. *asāsno gaur iti yathā gavayo vyapadiśyate/*
jātyantaraṃ na gor eva sāsnābhāvaḥ pratiyate//
VP. 3. *vṛtti* (14), 229.

42. *śyāmeva śastrī kanyeti yathānyad vyapadiśyate/*
asan brāhmaṇa ity ābhyāṃ tathānye kṣatriyādayaḥ//
VP. 3. *vṛtti* (14). 298.

43. Patañjali illustrates thus: *ayam daṇḍaḥ astīti gamyate. sa daṇḍaḥ kartābhūtvānyena śabdenābhisambadhyamānaḥ karaṇaṃ sampadyate. tadyathā kaścit kaṃcid pṛcchati. kva devadatta iti sa tasmā ācaṣṭe. asauvṛkṣa iti. katarasmin: yas tiṣṭhatīti. sa vṛkṣoi, dhikaraṇaṃ bhūtvānyena śabdenābhisambadhyamānaḥ kartā sampadyate. MB*. 2.1.1, vt. 5, p.366.

44. *bhedasaṃsargan vā sāmarthyam iti. kaḥ punar bhedaḥ samsargo vā iha rājñā ity ukte sarvaṃ svaṃ prasaktam. puruṣa ity ukte sarvaḥ svāmī prasaktaḥ ihedānīṃ rājapuruṣa ity ukte rājā puruṣaṃ nivartayaty anyebhyaḥ svāmibhyaḥ puruṣo' pi rājānam anyebhyaḥ svebhyaḥ. MB*. 2.1.1. vt. 2, p.364.

Patañjali hints at this theory in the *Paśpaśāhnika: athavā śabdair api śabdā vyākriyante. tad yathā. gaur ity ukte sarve sandehā nivartante nāśvo na gardabha iti. MB*.1.1.1, p. 12.

On the basis of this determinative function of words, Bhartṛhari developed two theories called *saṃsargavāda* and *bhedāpohavāda* to explain the denotation of number by the first member of the compound. See *VP*. III, *vṛtti* (14). 98. See also my *Sanskrit Compounds*, pp. 160-183.

45. See my article: 'Intention of the Speaker according to Grammarians', *S.V.U. Oriental Journal*, 30-31 (1987-88).

46. *VP*. 2.315-316 gives a list of determinants to decide the meanings of words in cases of vagueness. Patañjali refers to the communication through gestures, etc. also; cf. *antareṇa khalvapi śabdaprayogaṃ bahavo' rthā gamyante, kṣinikocaiḥ pāṇivihārais ca. MB*. 2.1.1, p. 363.

47. *athaitasmin śabdopadeśe sati kiṃ śabdānaṃ pratipattau pratipadapāṭhaḥ kartavyaḥ gaur aśvaḥ purṣo hasti śakunir mṛgo brāhmaṇo ity evamādayaḥ śabdāh paṭhitavyāḥ. netyāha anabhyupāya eṣa śabdānām pratipattau pratipadapāṭhaḥ. evaṃ hi śrūyate. bṛhaspatir indrāya divyaṃ varṣasahasraṃ pratipadoktānām śabdānāṃ śabdapārāyaṇaṃ provāca nāntaṃ jagāma. MB*. 1.1.1, p. 5.

48. *kiṃcit sāmānyaviśeṣvallakṣaṇam pravartyaṃ yenālpena yatnena mahato mahataḥ śabdaughān pratipadyeran. MB*.1.1.1, p. 6.

In the same way, following the same logic, the *śabdas* derived by the operation of rules also can be called *vyākaıaṇa*. So *vyākaraṇa* does not differ very much from the word magazines in the end result.

49. Cf. *athavā vyākhyānato viśeṣapratipattiḥ. nahi saṃdehād alakṣaṇam. MB*. 1.1.1, p. 6.

50. *MB*. 1.1.1, p. 11. Patañjali reiterates the same idea under the rule 2.1.1, vt. 5, p. 366 that the grammar accounts for the meanings conveyed by the words which are considered as correct.

51. *MB*.6.1.84, p. 58.

52. *na hy arthā ādiśyante. katham punar arthānādisann evaṃ brūyān nārthā ādiśyanta iti. yad āha bhagavān. anekam anyapadārthe* (2.2.24), *cārthe dvandvaḥ* (29) *apatye rakte nirvṛtc iti. natāny arthādeśanāni. svabhāvata eteṣām śabdānām eteṣv artheṣv abhiniviṣṭānāṃ nimittatve nānvākhyānaṃ kriyate.... kiṃ punaḥ kāraṇam arthā nādiśyante. tacca lakhvarthaṃ laghvartham hy arthā nādiśyante.....asambhavaḥ khalv apy arthādeśanasya. ko*

hi nāma samartho dhātuprātipadikapratyayanipātānām arthān adeṣṭum.... apravṛttiḥ khalv apy arthādeśanasya. bahavo hi śabdā yeṣām arthā na vijñāyante. MB. 2.1.1, p. 363.

53. For example the word *asva* is a correct usage when the speaker intends to convey 'a person who has no wealth' and incorrect in the sense of 'a horse'; cf.

asvagoṇyādayaḥ śabdāḥ sādhavo viṣayāntare/

nimittabhedāt sarvatra sādhutvaṃ ca vyavasthitam/VP.1.176.

54. Patañjali makes clear this point time and again: cf. *sarve khalv apy ete śabdā deśāntare prayujyante. na caita upalabhyante. upalabdhau yatnaḥ kriyatāṃ mahān hi śabdasya prayogaviṣayaḥ.... etāvantam śabdasya prayogaviṣayam ananuniśamya santy aprayukta iti vacanaṃ kevalaṃ sāhasamātram. MB*. 1.1.1, p. 9.

55. *lakṣyaṃ ca lakṣaṇaṃ caitat samuditaṃ vyākaraṇaṃ bhavati.... sūtrāṇi cāpyadhīyānaḥ iṣyate vaiyākaraṇa iti. naiṣa doṣaḥ samudāyeṣu hi śabdāḥ pravṛttāḥ avayaveṣv api vartante. ... evam ayaṃ samudāye vyākaraṇaśabdaḥ pravṛtto'vayave'pi vartate. MB*. 1.1.1, p. 12.

56. *vyākaraṇaṃ nāmeyam uttarā vidyā. so' san chandaḥśāstreṣv abhivinīta upalabdhyādhigantum utsahate. MB*. 1.2.32, p. 208.

Cf. *vedam adhītya tvaritā vaktāro bhavanti. .... anarthakaṃ vyākaraṇam iti. MB*. 1.1.1, p. 5.

57. *na hi śabdakṛtena nāmārthena bhavitavyam. arthakṛtena nāma śabdena bhavitavyam. MB*. 2.1.1, p. 362.

SEMANTIC CONDITIONS OF COMPOUNDS PĀNINI AND KAUṆḌA BHAṬṬA

VANITHA RAMASWAMY

यद्गृहीतमविज्ञातं निगदेनैव शब्द्यते।
अनग्नाविवशुष्कैंधो न तज्ज्वलति कर्हि चित्॥

THE IMPORTANCE of the meanings of words and compounds used by our ancient *ṛṣis* is very aptly brought out in a Vedic episode. In the *mantra* इन्द्रशत्रुर्वर्धस्व, when pronounced as अन्तोदात्त it is तत्पुरुष compound, the meaning being 'The enemy of India'. If pronounced आद्योदात्त it is बहुव्रीहि and the meaning is इन्द्रः शत्रुर्घातको यस्य. Accent produces gulf of difference in meaning. The success of the sacrifice depended on the correct recitation and understanding of the *mantras*.

The ancient Sanskrit grammarian traditionally known as *munitraya* have no doubt extensively deal with problems related to general linguistics. But it is the later grammarian - philosophers like Bhartṛhari, Kauṇḍa Bhaṭṭa and Nāgeśa who have enriched the science of Semesiology with their valuable contributions. Yet we cannot ignore the fact that these expanded meanings are based on Paṇini's *sūtras*. Even the Nyāya and Mīmāṃsā schools of philosophy deal with this subject. In fact these schools refer freely to each other's views while establishing their own views. This paper attempts to show how much of the explanations given by Kauṇḍa Bhaṭṭa are based on the *Trimunivyākaraṇa*.

After explaining नामार्थ, and, समास being नामविशेष Kauṇḍa Bhaṭṭa proceeds to state his doctrine on semantic conditions of compounds under the chapter समासशक्तिनिर्णयः The first *kārikā* states

the six divisions of compounds. This is based on Pāṇini's *sutra* सहसुपा।

सुपां सुपा तिङा नाम्ना धातुनाऽथ तिङां तिङा।

सुबन्तेनेति च ज्ञेयः समासः षड्विडधो बुधैः

What is a समास or compound? समसनं समासः। अनेकस्य पदस्य एकपदीभवनं समासः इत्यर्थः। The purpose of compounding words is to express the idea in minimum possible words. Thus the समास s compress more meaning or express a unitary meaning other than what is conveyed by individual words.

Kauṇḍa Bhaṭṭa deals with समास-s to establish the doctrine of the *vaiyākaraṇas* that there is same अतिरिक्त शक्ति in a समास which is नामसमुदामरूप.

The first *kārikā* states *samāsabhedas*, as *samāsa* takes place between (1) *subantas* and *subaṇtas* (सुपां-सुपा) like राजपुरुषः (The related *sutras* are षष्ठी, सप्तमी.. शौण्डैः (अक्षशौण्डः)

(2) सुपां तिङा- *subanta* with *tiṅanta*-पर्यभूषत्, अनुव्यचलत् in परि अचलत् or वि अचलत्, the समास is effected by 'सह' योगविभाग.

In अनुव्यचलत् the rule गतिमतोदात्तम् तिङादिसमासः (स्) and the वार्तिक- कुगतिप्रादयः (2.2.18) operate in this compound the *tiṅantas* गति etc. being व्यचलत्, समास comes. The result of समास is स्वर (3) सुपां नाम्ना-*e.g.* कुम्भकारः, The rule उपपदमतिङ (2.2.19)operates here. when the word कुम्भ is a उपपद, then by the rule कर्मणिअण् (3.2.1), अण् प्रत्यय comes after कृधातु. Hence समास comes into effect in कुम्भ अस्कार. This समास is effected before सुप् comes after the उत्तरपद, कार by the परिभाषा— गतिकारकोपदानां कृद्भिस्सह समासवचनं प्राक् सुप् उत्पत्तेः- The पूर्वपद is a सुबन्त. If we accept समास before सुप् comes between पूर्वोत्तरपद-s, then in examples like चर्मक्रीती as चर्मन् is not a पद the न लोप may not come.

(4) सुपां धातुना-*subantas* with *dhātus*. Ex. कटप्रूः, अयतस्तूः The compounding of the word कट with प्रु धातु and the word अयत with स्तु धातु takes place by the rule अन्येभ्योपि दृश्यते and the वार्तिक-क्विब् वचि-प्रच्छ्यायत यतस्तुकटप्रजुक्षीणां दीर्घश्च under this rule. In this वार्तिक, the

compounds like कटप्रूः, अयतस्तूः have been effected by निपातन with roots. What is निपातन?

When there is no other विधायक सूत्र, to show the effect within the frame work of the सूत्र as the वार्तिक is called निपातन—सिद्धप्रक्रियानिर्देशः निपातनम् कटं प्रवते-कटप्रूः, आयतं स्तौति-आयतस्तूः।

Objection— In the place of क्विबन्त, धातु being प्रातिपदिक becomes नाम. Therefore सुबन्त gets compounded with नाम. The compounds कटप्रू and आयतस्तूः can be brought under this category. Hence there is no need for another category like सुपां धातूनां.

In examples like आयतस्तूः the word आयत gets अन्वय in the स्तवनरूपक्रिया. It is not a विशेषण to स्तवनकर्तृ. Only the नामपद is क्विप् प्रत्ययान्त but not स्तुधातु. As आयत does not get अन्वय in क्विबन्त, the word आयत concords only in the meaning of the root स्तु. Therefore the category सुपांधातुना is stated separately.

(5) तिङांतिङा-Here both are *tiṅantas*. Ex: पिबतखादत, पचतबृज्जत-Here the समास comes into force by the गणसूत्र—आख्यातं आख्यातेन क्रिया ख्यात्ये under the rule मयूरव्यंसकादयश्च (2.1.72).

पिबत खादत इति एवं सततं यत्र अभिधीयते सा पिबतखादत।

(6) तिङासुबन्तेन—Here the पूर्वपद is तिङन्त and the उत्तरपद is सुबन्त. Ex: जहिस्तम्भः The समास is effected by the गणसूत्र— जहि कर्मणा बहुल-माभीक्ष्ण्येकर्तारं चाभिदधाति under the rule मयूरव्यंसकादयश्च जहिस्तम्भं जहिस्तम्भं इति मः मुहुः मुहुः आह सः जहिस्तम्भः।

All these six kinds of compounds are obtained by analysing the rule सहसुपा (2.1.4) according to the भाष्यकार. More details are available in शब्दकौस्तुभ and other works.

Bhaṭṭoji Dīkṣita has explained in his *kārikas*, the समासभेद stated clearly in the भाष्य and noted that the classification definition or विभागलक्षण of the प्राचीनवैयाकरण has the defect of अव्याप्ति, अतिव्याप्ति and असम्भव. Hence calls it प्रायोवाद in the next *kārikā*.

According to the ancient grammarians, समास is classified into four kinds as (1) अव्ययीभाव (2) तत्पुरुष (3) बहुव्रीहि (4) and द्वन्द्व. The word प्रायः is used in the sense of बाहुल्य.

In that case the compounds without any special symbol or विशेषसंज्ञा like भूतपूर्वः, दृग्भूः काराभूः आयतस्तूः वागर्थाविव etc. cannot be brought under any of the above four compounds. But these compounds get established by analysing the *sūtra* and also by the technique of निपातन in the सुत्र and वार्तिक.

Even the definitions पूर्वपदार्थप्रधानः अव्ययीभावः, उत्तरपदार्थप्रधानः तत्पुरुषः, अन्यपदार्थप्रधानः बहुव्रीहिः उभयपदार्थप्रधानः द्वन्द्वः are general definitions only (i.e. प्रायिकलक्षण), not निष्कृष्टलक्षण. In examples like उन्मत्तगंगं, सूतप्रति, अर्धपिप्पली, द्वित्राः, शशकुशपलाशं etc. There is परस्पर दोष। Kauṇḍa Bhaṭṭa explains them as follows.

उन्मत्तगङ्गा यस्मिन् देशे सः उन्मत्तगङ्गम्- In this अव्ययीभाव there is no प्राधान्य for पूर्वपदार्थ. Hence there is अव्याप्ति of अव्ययीभावलक्षण. As the अन्यपदार्थ is प्रधान there is the अतिव्याप्तिदोष of बहुव्रीहिलक्षण. Here the समास is effected by the rule अन्यपदार्थेक संज्ञायाम् (2.1.21)

In the example सूपप्रति there is अव्ययीभाव. But the उत्तरपदार्थ, viz. प्रति being प्रधान there is the अतिव्याप्ति of तत्पुरुषलक्षण and पूर्वपदार्थ being अप्रधान there is the अव्याप्ति of अव्ययीभाव लक्षण.

In the example पिप्पल्याः अर्धं-अर्ध पिप्पली, the compound is effected by the rule अर्धं नपुंसकम् (2.2.2). Here as the पूर्वपदार्थ is प्रधान, there is अतिव्याप्ति of अव्ययीभावलक्षण, and the उत्तरपदार्थ not being प्रधान, there is the अव्याप्ति of तत्पुरुषलक्षण।

In the example. कायस्यपूर्वं पूर्वकायः the same defects are seen. In the बहुव्रीहि compound द्वौ वा त्रयो वा-द्वित्राः, the बहुव्रीहि comes by the rule संख्याव्ययासन्न दूराधिक संख्याः संख्ये ये (2.2.25). Here the meanings of both words being important, there is the अतिव्याप्ति of द्वन्द्वलक्षण and अन्यपदार्थ being अप्रधान there is the अव्याप्ति of बहुव्रीहिलक्षण।

In the द्वन्द्व compound शशश्च कुशश्च पलाशश्च एषां समाहारः शशकुशपलाशं the समास is due to the rule चार्थे द्वन्द्वः (2.2.28). Here, as there is समाहाररूप अन्यपदार्थ प्राधान्य there is the अतिव्याप्ति of बहुव्रीहिलक्षण, and as there is no प्राधान्य for all पदार्थ, there is the अव्याप्ति of द्वन्द्वलक्षण.

According to the rules अव्ययीभावः (2.1.5), तत्पुरुषः (2.1.22), शेष बहुव्रीहिः (2.2.23), चार्थेद्वन्द्वः (2.2.29), when the समास is effected by the rule stated under the अधिकार of these *sūtras*, then they

becomeअव्ययीभाव, तत्पुरुष, बहुव्रीहि, द्वन्द्व compounds. Then there will be no दोष.

However, according to the *vaiyākaraṇa siddhānta* the जहत्स्वार्थ and एकार्थीभाव have been accepted. In that case there are no पूर्वोत्तरपद. Hence the लक्षण: stated above are not applicable to any लक्ष्य. Hence there is असम्भवदोष.

Though in the समासादिवृत्ति, there is no reference like, this is पूर्व and this is पर, the usage which exists before the *vṛitti* like पूर्व and पर is accepted like the रेखागवयन्याय even if this is not true. The parts of the गवय are revealed only by सादृश्य. Similarly by the similarity of the पूर्वोत्तरपद in the विग्रहवाक्य, earlier to the *vṛitti* the पूर्वोत्तरपद have to be understood even in compounds.

Under the rule समर्थ: पदविधि: (2.1.1). Patañjali has given several views of them. जहत्स्वार्थ and अजहत्स्वार्थ, have been clearly stated.जहत्स्वार्थ leads to एकार्थीभाव and अजहत्स्वार्थ leads to व्यपेक्षाभाव. जहत्स्वार्थ: जहति (पदानि) स्वार्थं यस्यां सा- जहत्स्वार्था, न जहत्स्वार्था अजहत्स्वार्था. In the case of एकार्थीभाव as the समुदाय reveals the विशिष्टार्थ, the individual words do not express their meanings. It is said in the *bhāṣya* —प्रक्रियादशायां प्रत्येकं अर्थवत्वेन पृथक् गृहीतानां पदानां समुदायशक्त्या विशिष्ट एकार्थ-प्रतिपादकत्वम् एकार्थीभाव: (2.2.1).

In the secondअजहत्स्वार्थ or व्यपेक्षापक्ष- the individual words have meanings. There is परस्परान्वय between the words by आकांक्षा. The भाष्य states that स्वार्थपर्यवसायिनां पदानां आकांक्षावशात् परस्परान्वय: व्यपेक्षा (2.2.1).

In जहत्स्वार्था पक्ष, like the letters having no meaning in a word. the words too will have no meaning. In examples like राजपुरुष, the meaning राजविशिष्ट पुरुष: is expressed by समासशक्ति alone. Hence there is no need to give power to convey meaning separately toराज and पुरुष.

In the examples वृषभ and यावक, though the word वृष conveys the meaning वृषभ, The word वृष in वृषभ is not given the meaning वृषभ in usage. Similarly याव and यावक. As the words वृषभ and यावक give the required meaning it is not right to say that the words वृष and यव are the वाचक. Similarly in राजपुरुष it is useless to give

individual meanings to राज and पुरुष as the विशिष्टार्थ comes from the समुदाय.

Again in the विग्रहवाक्य राज्ञः पुरुषः, as the word राजन् conveys meaning independently, the adjective ऋद्धस्य which has the usageऋद्धस्य राज्ञः पुरुषः can be used as ऋद्धस्य राजपुरुषः as राजन् expresses a separate meaning. According to theजहत्स्वार्थपक्ष, the अवयव or individual words of a समास have no meaning. Then according to the maxim पदार्थः पदार्थेन अन्वेति न पदार्थ एकदेशेन, there is no विशेषणान्वय in one word or एकदेश.

According to अजहत्स्वार्थ there is no proof for अतिरिक्तशक्ति in समासादिवृत्ति. As the meaning is conveyed by the individual words, to imagine a समुदायशक्ति leads to the defect of गौरव। By आकांक्षा etc. the meaning expressed by the individual words convey the unitary meaning. The भाष्यकार calls this as व्यपेक्षापक्ष।

According to this, when in a समास the वार्तिक-सविशेषणानां वृत्तिर्न, वृत्तस्य वा विशेषणयोगोन (2.1.1) comes into operation. Hence theअन्वय of ऋद्धस्य with the word राज, the एकदेश will not take place. And also, meaning for the पूर्वोत्तरपद in a समास should be accepted by the rules पूर्वपदार्थप्रधानः अव्ययीभावः etc. Hence the भाष्यकार has said परस्पर व्यपेक्षां सामर्थ्यमेके।

Now each one of these two kinds is of three kinds as भेद, संसर्ग and भेदसंसर्ग. According to Kaiyaṭa यदि वृत्तौ, भेदसंसर्गो न स्यातां तदा सामर्थ्यमेव न स्यात् तदात्मकत्वात् सामर्थ्यस्य- If there is no भेद and संसर्ग in the *vṛtti* there will be no सामर्थ्य. भेद exists with संसर्ग by अविनाभावि relation. Hence भेद is समासवाच्य, संसर्ग being inअविनाभावि relation, becomes समासवाक्य. Here भेद means अन्योन्याभाव like घटः न पटः।

In the example. राजपुरुषः, the word राजन् separates the पुरुष from other masters (राजभिन्न असंबन्धी) and this gives up its स्वार्थ. Where as पुरुष without leaving the स्वार्थ separates the king fromअश्व and others. In this way भेदार्थ comes from समास।

When we say राज्ञः, it includes all the belongings of the king. When we say पुरुषः, all masters come into picture. When we say राजपुरुषः, the king's property will be only the पुरष. Not horse etc. The

master of the पुरुष will be the king alone and none else. In this way संसर्ग becomes समासवाक्य।

When both भेद and संसर्ग are taken into consideration at the same time both become the meanings of the compound.

If भेद is not the meaning of the compound, then we will have the usage राजपुरुषः देवदत्तस्य, like the accepted usage राजपुरुषः सुन्दरः। Then the meaning would be राजभिन्न देवदत्तसम्बन्धी. If भेद has to be seen संसर्गज्ञान is necessary. Hence संसर्ग which exists first, becomes समासार्थ i.e. राजसम्बन्धवान् पुरुषः will be the शाब्दबोध. Thus संसर्ग is वाच्य, the expressed meaning of the compound, while भेद shows up later by inference.

To avoid using राजपुरुष in the case of a man who does not have any master both भेद and संसर्ग are considered as समासवाच्य. For eg. राजपुरुषः देवदत्तस्य च. If संसर्ग is not समासार्थ, then the पुरुष without a master has राजभिन्न असम्बन्धित्व and hence the usage राजपुरुषः applies. Therefore both भेद and संसर्ग have to be accepted as समासार्थ, eg.राजपुरुषः, अराजकीय भिन्नः, राजसम्बन्धवान् च।

Further to establish *ekārthībhāva* or one unitary meaning for compounds, he points out some flaws in अजहत्स्वार्थपक्ष. According to the *vaiyakaraṇas* there is power to convey meaning only in समुदाय. The word समास refers to all the five *vṛittis*—कृत्ताद्धित-समास एकशेषसनाद्यन्त धातुरूपाः पञ्चवृत्तयः—The समास-विधायकसूत्र give us the knowledge of समास. Therefore समास is पदविधि—पदमुद्दिश्य यो विधीयते समासादिः स समर्थः, विग्रहवाक्याभिधाने शक्तः सन् साधुरिति। What is the nature of पदविधि? The प्रत्यय by which the पदसंज्ञा is given is प्रयोजक for पदसंज्ञा. In राजपुरुषः the सुप् प्रत्यय brings पदसंज्ञा. The cause for this सुप् प्रत्यय is the प्रातिपदिकसंज्ञा. The rule कृत्तद्धितसमासाश्च is a संज्ञाविधायक सूत्र. Therefore in the words पाचकः (कृत्), औपगवः (तद्धित), the affix सु is based on the प्रातिपदिकसंज्ञा. The rules ण्वुल्, तृचौ, तस्यापत्यं also operate here. Therefore these are also पदविधि even एकशेष is पदविधि.

To establish समुदायशक्ति in compounds he gives the following arguments.

समुदायशक्ति is accepted by all in पङ्कज, चित्रगुः etc. and not लक्षणा. The same is the case with रथकार etc.

घटत्व is the विशेषण for घट. By तात्पर्य there is नित्यत्वान्वय. To avoid the usage घटोनित्यः we use the maxim पदार्थः पदार्थेन अन्वेति न तु पदार्थैकदेशेन. By this the numbers used by the व्यपेक्षवादिन् become गतार्थ. Hence there is लाघव. That's why the भाष्यकार has said—इमे तर्हि—एकार्थीभावकृताः विशेषः संख्या विशेषः, व्यक्ताभिधानं, उपसर्जनविशेषण च योगाः (2.1.1) and has made it clear that these are the विशेष for एकार्थीभाव.

According to एकार्थीपक्ष we get तद्धित, and सनादिवृत्ति get established. But according to व्यपेक्षा पक्ष only a वाक्य gets established. Here the two rules समर्थानां प्रथमाद्वा (4.1.82) and धातोः कर्मणः समान कर्तृकात् इच्छायां वा (3.1.7) operate. By 'वा' we get वचनानर्थक्यं. The भाष्यकार writes स्वभावतः एतत् भवति. Hence the first gives व्यपेक्षापक्ष then statesअथ एकस्मिन् व्यपेक्षायां सामर्थ्ये योऽसौ एकार्थीभावकृतः विशेषाः स वक्तव्यः If we concede the व्यपेक्षापक्ष first then the विशेष in एकार्थीभाव have to be stated. This leads to गौरव. Thus for the above reasons एकार्थीभाव should be accepted in वृत्ति in general.

In व्यपेक्षापक्ष to convey the relation in विशेषण etc., we should use separate numbers. That leads to गौरव. He has given some more examples like धवखदिरौ etc.

Another defect in व्यपेक्षापक्ष is बहुव्युत्पत्तिभञ्जनं eg. प्राप्तोदकः ग्रामः

Again there is no दोष in द्वितीयार्थ बहुव्रीहि, but he shows defects in तृतीयार्थ and other बहुव्रीहि

Eg.ऊढः रथः येन सः

In राजपुरुषः etc. if we donot accept समुदायशक्ति it does not become अर्थवत्. In that case it will not get प्रातिपदिकसंज्ञा by अर्थवत्.... (1.2.45). Then सुप् etc. will not come and they remain to be अपद hence असाधु.

The भाष्यकार has asked the question why अर्थवत्? The group of meaningful words has no meaning like दशदाडिमानि, अपूपाः कुण्डं अजाजिनं etc. Though राजपुरुष have meanings individually, as there is no meaning for समुदाय, it does no get प्रातिपदिकसंज्ञा।

Again, when there is no शक्यार्थ for समुदाय how can लक्षणा come? When there is no लक्ष्यार्थ there is no प्रातिपदिक संज्ञा as a result सुप् etc. will not come. Then all compound words remain as अपदाः and as per the rule अपदं न प्रयुञ्जीत they cannot be used. Hence unitary sense has to be accepted in compounds.

PĀṆINI ON REDUPLICATION

K.V. RAMAKRISHNACHARYALU

LANGUAGE IS a tool of communication. In this process, the speaker utters sentences, which have words as their parts, with some modulation or stress to denote some idea. Sometimes he may superimpose some concept on an object, or repeat the same word to denote a particular context, modality or idea. This type of re-duplication of a particular parts of speech, i.e. a group of words, a word, or a part of word i.e. root etc., with the same meaning is called *dvirukti*.

Re-duplication or repetition is common in all languages, though the contexts may differ. The Sanskrit grammarians of Pāninian system have carefully studied the case of Re-duplication. The repetition has been discussed in the 3rd, 6th and 8th chapters of *Aṣṭādhyāyī*.

As a whole this Repetition may be divided into three types- 1. Repetition of words or word-groups 2. Repetition of roots (as a whole), and 3. Repetition of a part of the root.

1. Re-duplication of a part of the root

This is dealt in 6th chapter of *Aṣṭādhyāyī* with the following rules:

(a) *liṭidḥātoranabhyāsasya* (6-1.8),
(b) *sanyaṅoḥ* (6-1-9)
(c) *ślou* (6-1-10)
(d) *caṅi* (6-1-11)

governed by the rules *(adhikāra-sūtras) ekāco dve prathamasya* (6-1-1-) and *ajāder dvitīyasya* (6-1-2). These rules

denote the repetition of a part of the root in certain suffixes i.e. *liṭ, caṅ* (*luṅ*), *ślu, san* and *yaṅ*. Though there is no separate meaning or context for the repetition of a part of the root, as the meaning meant by the speaker is taken care of by the suffixes, this is helpful to disambiguate the suffixes from similar suffixes. For example—*pāpacyate—pacyate*. Here one is *yaṅ* and another is *yak*. Likewise the different *abyāsakāryas* help to confirm the suffix and its meaning.

For example— *babhūva* (*liṭ*), *abībhavat (caṅ)*, *bubhūṣā* (*san*), *bobhūyate* (*yaṅ*), and *bobhavīti* (*yaṅ luk*).

2. Re-duplication of the whole root

Repetition of the whole root means, the repetition of the same root with different suffixes. For example— *samūlakāṣam kaṣati*- Here the root *kaṣ* is repeated with *ṇamul* and *tiṅ*. In these constructions some noun in specified case-ending will be compounded with the gerund ending with *ṇamul*, and the same root has to be repeated there as a verb of main clause as per the rule 3-4-46 *kaṣādiṣu yathāvidhyanuprayogah*. There are twelve rules starting with rule 3-4-34 *nimūlasamūlayoh kaṣah* to rule3-4-45 which are related to the above context. The following are the examples of the above mentioned rules respectively.

1. *śamūlakāṣam kaṣaṭi* = (*śamūlam kaṣaṭi*) = (he scraps it up to the roots) (1) *nimūlakāṣam kaṣati* = (*nimūlam kaṣati*) = (he scraps it up to the roots) (1).

2. *suṣkapeṣam pinaṣti* = (*śuṣkam pinaṣti*) = (he grinds it dry) (2) *cūrṇapeṣam pinaṣṭi* = (*cūrṇam pinaṣṭi*) = (he grinds it to powder) (2).

3. *samūlaghatam hanti* = (*samūlam hanti*) = (he destroys so as to tear up by the roots) (3) *akṛtakāram karoti* = (*akṛtam karoti*) = (he does a thing which was not done before) (3) *jīvagrāham gṛhṇāti* = (*jīvam gṛhṇāti*) = (he captures him alive) (3).

4. *pāṇighātam hanti* = (*pāṇinā hanti*) = (he strikes with his hand) (4).

5. *udapeṣam pinaṣṭi* = (*udakena pinaṣṭi*) = (he grinds with water) (5).

6. *hastavartam vartayati* = (*hastena vartayati*) = (he revolves by the hand) (6) *hastagraham gṛhṇāti* = (*hastena gṛhṇati*) = (he takes by hand) (6).

7. *svapoṣam puṣṇāti* = (*svam puṣṇāti*) = (he feeds himself) (7).

8. *cakrabandham badhnāti* = (*cakre badhnāti*) = (he ties to the wheel) (8).

9. *kruñcabandham badhnāti* = (*krouncamiva badhnāti*) = (he forms his army in the manner of *kruñca*) (9).

10. *jīvanāśam naśyati* = (*jīvo naśyati*) = (person perishes) (10) *puruṣvāham vahati* = (*puruṣo vahati*) = (person carries) (10).

11.*ūrdhvaśoṣam śuṣyati* = (*ūrdhvam eva śuṣyati*) = (tree is dried up, while it is standing) (11) *ūrdhvapūram pūryate* = (*ūrdhvaḥ pūryate*) = (the pot is filled to the brim) (11).

12. *ghṛtanidhāyam nihitam jalam* = (*ghṛtamiva nihitam jalam*) = (water was kept like ghee) (12) *ajakanāśam naṣṭah* = (*ajaka iva naṣṭah*) = (he died like a goat) (12).

In all above examples 1 to 11 are special cases. The roots which are mentioned in the respective rules only get the suffix *ṇamul*, when they follow certain words (*upapadas*) which are also mentioned in respective *sūtras* and the root will be repeated with *tiṅ*-suffix. The twelfth is a general case of *ṇamul*, in which any root will have *ṇumul*, if it is followed by aṅy word which denotes *upamāna* (similar), and the same root will be repeated with *tiṅ*-suffix.

There is no restriction for neither *upapada* nor for root here, but the context should be similitude. This type of expressions are in Telugu also. For example— *kukka cāvu caccādu* (he died like a dog). Here *cāvu* is a verbal-noun in Telugu and the same root is repeated as main verb. This can also be expressed as *kukkalā caccādu* or *kukka caccinatlu caccādu*, which are possible in Sanskrit also.

There is another peculiar usage, where the root is repeated thrice in different verb forms, in which the first two are same in imperative mood second person singular. See the example—

(*lunīhi lunīhi iti lunāti*) = (he cuts repeatedly) (*adhīṣva adhīṣva iti adhīte*) = (he studies uninterruptedly)

This repetition is in the context of *kriyāsamabhihāra* i.e. frequency of repetition of an action as per the rule 3-4-2 (13). When *kriyāsamabhihāra* is the context the second singular of the imperative mood will be substituted for all persons and numbers in that mood, and the word will be repeated as per the *vārttika kriyāsamabhihāre dve vācye* (14), and the same root in finite verb form should accompany the repeated one. Here the repeated imperative mood form indicates the frequency of action and the verb in main clause takes care of other modalities like person, number, tense etc. It is learnt that this type of constructions are available in Oriya and Marathi.

This type of constructions are also available in Telugu with some modification. In Telugu the verbal noun is used in the place of gerund. Examples—

Caduvu caduvu alā caduvutūne umtādu (he studies uninterruptedly) *āta āta alā ādutūne umtādu* (he plays continuously).

In Telugu the verbal noun can be repeated even more than twice.

3. Repetition of Whole Word

Pāṇini and Vārtikakāra have elaborately discussed about the repetition of whole word in I *pada* of VIII chapter of *Aṣṭādhyāyī*. The first rule of the VIII chapter *sarvasya dve* (8-1-1)' is a governing rule (*adhikāra-sūtra*) of the following rules which indicate the repetition of words.

This repetition of the whole word can be viewed in four types namely (1) repetition of finite verb, (2) repetition of gerund, (3) repetition of indeclinables *pari* etc. and (4) repetition of nouns.

3.1. Repetition of Verb (finite)

This is in three contexts 1. continuity of an action 2. a confusing state of mind, 3. frequency or repetition of an action. Examples—

1. *pacati pacati* = (he cooks continuously)

jalpati jalpati = (he talks incessantly)

Here the repetition is in the context of *nitya*, according to the rule *nityavīpsayoḥ* (8-1-4). Here *nitya* means again and again, uninterruptedly of the principle action without cessation.

It is to be noted here that if the speaker wants to denote *nityatā* of an action, and also the degree of an action then the verb form is to be repeated first and then the suffix *tarap* or *tamap* should be added to denote the degree. Ex. *pacati pacatitarām/ pacati pacatitamām*.

2. *sarpah budhyasva budhyasva* = (snake beware beware)

Here the repetition indicates the confused state of mind due to fear, emotion, helplessness etc., which is mentioned by the words *cāpala* and *sambhrama* in the *vārttika cāpale dve bavata iti vaktavyam* (15) also read as *sambhrame dve bhavata iti vaktavyam*. Here the verb can be repeated more than twice also.

3. *Lunīhi lunīhi iti lunāti* = (he cuts uninterruptedly).

This is already discussed above.

3.2. Repetition of Gerund

This will be in two situations 1. in the idea of *nityatā*, 2. a complete involvement of a person or a thing in a particular action. Example—

1. *smāram smārm* or *smṛtvā smṛtvā* (memorising repeatedly)

2. *bhojam bhojam vrajati* (each one, when he had eaten goes away)

Here in both cases the repetition is as per rule *nityavīpsayoḥ* (8-1-4) and *ṇamul* and *ktvā* by the rule *ābhīkṣṇye ṇamulca*

(8-4-22). This type of expression are common in Telugu. Example-

tirigi tirigi vaccādu (wondering repeatedly came back) *tini tini potunnādu* (each one after eating goes away)

3. *geham anupraveśam anupraveśam* = (entering into whole house or entering repeatedly into the house)

Here the two meanings are called *vyāpti* and *āsevā* respectively and the *ṇamul* comes by the rule *viśipatipadiskandām vyāpyamānasevyamānayoḥ* (3-423)—

The gerund form will be repeated when it is not compounded with *upapada*.

3.3. Repetition of Pradi

pari, pra, sam, upa, ud, upari, axhah, axhi are repeated in certain contexts.—

(a) *pari* is repeated to denote exception or exclusion. (Rule 8-1-5) (16)

Ex. *pari pari trigartebhyaḥ vṛshto devaḥ* = (It rained around Trigarta)

(b) *pra, sam, upa* and *ud* are repeated to fill up the gap to satisfy the metre in Vedic poetry. (Rule 8-1-6) (17).

(c) *upari, adhah adhi* are repeated in the sense of uninterruptedly nearness of place or time (Rule 8-1-7) (18).

It's examples *adhyadhi lokam, uparyupari lokam, adhodhaḥ lokam* are quite familiar.

3.4. Repetition of Noun

This can be viewed in two types initially = (1) compounded and (2) not compounded (*samasta* and *asamasta*).

3.4.1.

The compounded (*samasta*) can be divided further into four types---

1. Repetition of pro-noun 2. Repetition of an adjective 3. Repetition of an indiclinable 4. Repetition of other nouns.

3.4.1.1.

(a) The pronoun *eka* will be repeated in the sense of *vīpsā* and it will be like *bahuvrīhi* compound (Rules 8-1-4 and 9) (19) Ex. --- *ekaikam paśya* (see each one)

(b) The pronoun *dvi* will be repeated and it will be treated as *dvandva* compound in the sense of secret. limit, separation, employing in a sacrificial vessal, and manifestation. (Rule 8-1-15) (20)

Vāmana the author of *Kāśikā* a commentary on *Aṣṭādhyāyī* says that this repetition will be in other meanings also like quarrel etc., (21)

(c) The pronouns *anya, itara, para* undergo reduplication in the sense of *karmavyatihāra* (reciprocity of action) as per the following *vārttika* (22).

karmavyatihāre sarvanamno dve bhavata iti vaktavyam, samāsavacca bahulam

Ex.-- *anyonyam, itaretaram, parasparam* etc. When it is not compounded, then the first word should be in singular..

3.4.1.2.

The repetition of an adjective to express that the said attribute belongs to a thing only to a limited degree.

Ex. -- *paṭupatuḥ* (tolerably sharp or clever enough).

Here compounding is a must as per the rule *prakāre gaṇavacanasya* (8-1-12). But there are examples without compounding. For instance from *Hayagrīvastotra* of *Śrī Vedāntadeśika*. Here the word *navam* is repeated in the above sense but uncompounded. (*navam navam* - pretty new).

3.4.1.3.

The example for the repetition of indiclinable is *yathātatham* in the sense of respectivity. (23)

3.4.1.4.

The repetition of the noun will be in four contexts-

(a) In the sense of *akṛchra* (easiness or without any difficulty or with pleasure) for the nouns *priya* and *sukha* (Rule 8-1-13) (24). Ex. -- *priyapriyeṇa dadāti* or *sukhasukhena dadāti* (gives with pleasure or easily).

(b) In mental distress over something is expressed. (*ābādhe ca* 8-1-10). Ex. -- *gatagataḥ* (he has gone (in a sorrowful state)).

(c) When the suffix *ḍāc* is added (*ḍāci bahulam dve bhavataḥ* (*vārttika*) (25). Ex.-- *patapatākaroti* —

(d) When the suffix *kha* is added as per rule *samām samām vijayate* (5-2-12). Ex. -- *samāmsamīnā* - (a cow that gives birth to a young every year and thus pregnant throughout the year).

3.4.2.

The repetition of uncompounded nouns is of many types. Broadly they can be divided as two types - (1) Repetition of *āmantrita* (2) Repetition of others.

3.4.2.1.

The *āmantrita* (noun which denotes the addressed) which is in the beginning of the sentence will be repeated in the contexts of *asūyā* (jealousy), *sammati* (praise), *kopa* (anger), *kutsā* (blame), and *bhartsanā* (threat). (Rule 8-1-8) (26). Examples are-

1. *sundara sundara vṛthā te saundaryam* (O handsome ! your beauty is in vain)

2. *deva deva vandyosi* (O lord ! you are adorable)

3. *duṣṭa duṣṭa idānīm jñāsyasi* (O ill minded ! you will learn now)

4. *dhānuṣka dhānuṣka vṛdhā te dhanuḥ* (O archer ! your bow is useless)

5. *cora cora ghātayiṣyāmi tvām* (O thief ! I will have you punished)

3.4.2.2.

The other than *āmantrita* will have *dvirukti* in the senses of *vīpsā* (in the sense of each), *ānupūrvī* (due order), *sambhrama*

(confusing state of mind), *vyāpti* (a full or complete contact or relation) *karmavyatīhāra* (reciprocity of action), *arthātiśaya* (comparative or superlative sense), *samasampradhāraṇapraśna* (enquiry about the superiority of one out of two or many) *anekasmin svārthāvadhāraṇam* (limitation of a particular quantity), etc. The examples are --

1. *vṛkṣam vṛkṣam siṃcati* (he waters each tree). *gramo gramo ramaṇīyaḥ* (each village is pleasant). *vīpsā* as per the rule '*nityavīpsayoḥ*' (8-1-4).

2. *mūle mūle sthūlaḥ* (each starting point in a *parva* of bamboo is stout)

ānupūrvī as per the *vārttika ānupūrvye dve bhavata iti vaktavyam* (27) (an adjective is repeated to denote that persons or things possessing a similar attribute are to be taken in their order).

3. *sarpaḥ sarpaḥ budhyasva* (Snake snake aware) *sambhrama* as per the *vārttika sambhrame (cāpale) dve bhavata iti vaktavyam* (28)

4. *geham geham anupraveśam* (entering into the whole house for the purpose of search etc.) *vyāpti* as per the rule *viśipatipadiskandām vyāpyamānā- sevyamānayoḥ* (8-4-23) (This kind of expressions are seen in Telugu also- *illu illu xūri vetikāru* (meaning same as above).

5. *anyamanyam ime brāhmaṇā bhojayanti* -- (The Brahmins make them eat each other). Here the *vārttika karmavyatihāre sarvanāmno dve bhavata iti vācyam, samāsavacca bahulam* (29) makes the *samāsavadbhāva* (compounding) optional. Hence in the sense of *karmavyatīhāra, sarvanāma* (pronoun) can also be repeated individually.

6. *pūrvam pūrvam puṣyanti* - (They blossom first than any other) *prathamam prathamam puṣyanti (--- do ---)*

Here the repetition is meant for *arthātiśaya* (comparative or superlative sense) as per the *vārttika pūrvaprathamayoḥ arthātiśayavivaṣāyam dve bhavata iti vaktavyam* (30).

7. *ubhāvimou āḍhyou - katarā katarā anayoḥ āḍhyatā kīdṛśī kīdṛśī anayoḥ āḍhyatā kataraḥ kataraḥ anayoḥ vibhavaḥ* (What is the superiority of these two)

The words ending with *ḍatara* and *ḍatama* are doubled when they refer to the feminine nouns and are employed in determinating upon the relative condition of the superiority of one out of two or many (31).

This is found with *kīdṛk* and in masculine gender also.

8. *asmāt kārṣāpaṇāt iha bhavadbhyām māṣam māṣam dehi-* - (give a *māṣa* each out of this gold to you two) (32).

Here a *kārṣāpaṇa* is a measure of gold which contain many *māṣas*, but the gift is limited to one each only. Māṣa is a smallest quantity of gold.

As much the repetition or reduplication is examined here as per Pāṇinian grammar. Repetition is common in all languages though the context may differ in some cases.

If we get examples of reduplication other than the above mentioned contexts we have to think whether they can be handled with the above mentioned rules are not.

For example in Venkatesa Stotra we find the following :

vinā venkateśam na nātho na nāthaḥ

Here the words *na nāthaḥ* are repeated in the sense that Venkateśa is the only protector. This is in the context of *avadhāraṇa* or *niścaya* (statement of confirmation) which seems to be not covered in the above rules. Likewise the repetition is also seen in the context of compulsion (*avaśyakartavya bodhanam*) which is also not covered by the above rules. For example *japa japa satatam janmasāphalyamantram*. Though it can be argued that this is also in the context of *nityatā* or *vipsā*, the author's intention is here compulsion only.

The study of reduplication in Sanskrit supports the idea that Sanskrit was spoken in those days. We could not find examples in literature i.e. in *kāvyas nāṭakas, purāṇas* etc. for the rule

kriyāsamabhihāre lot loto hisvou vā ca tadhvamoḥ (3-4-2)- *lunīhi lunīhi* iti *lunāti* which is a colloquial form and present in Marathi and Oriya as it is. Likewise most of the rules of reduplication are in the spoken aspect of the language.

NOTES

1. *nimūlasamūlayoḥ kaṣaḥ* (3-4-34)
2. *śuṣkacūrṇarūkseṣu piṣaḥ* (3-4-35)
3. *samūlālākṛtajīveṣu hankṛñgrahaḥ* (3-4-36)
4. *karaṇe hanaḥ* (3-4-37)
5. *snehane piṣaḥ* (3-4-38)
6. *haste vartigrahoḥ* (3-4-39)
7. *sve puṣaḥ* (3-4-40)
8. *adhikaraṇe bandhaḥ* (3-4-41)
9. *sañjñāyām* (3-4-42)
10. *kartroḥ jīvapuruṣayoḥ naśivahoḥ* (3-4-43)
11. *ūrdhve suṣipūroḥ* (3-4-44)
12. *upamāne karmaṇi ca* (3-4-45)
13. *kriyāsamabhihāre loṭ loṭo hisvou vā ca tadhvamoḥ* (3-4-2)
14. See *Mahābhāṣya* of Patañjali under rule no (8-1-12)
15. Ibid
16. *parervarjane* (8-1-5)
17. *prasamupodaḥ pādapūraṇe* (8-1-6)
18. *uparyadhyadhasah sāmīpye* (8-1-7)
19. *ekam bahuvrīhivat* (8-1-9)
20. *dvandvam rahasya-maryādāvacana-vyutkramaṇa-yajñapātraprayoga-adhivyaktiṣu* (8-1-15)
21. See *Kāśikāvṛtti* of Vāmana a commentary on *Aṣṭādhyāyī* rule no (8-1-15)
22. See *Mahābhāṣya* of Patañjali under rule no (8-1-12)
23. *yathāsve yathāyatham* (8-1-14)

24. *akṛcchre priyasukhayoḥ anyatarasyām* (8-1-13)

25. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

26. *vākyāderāmantritasya asuyā-sammati-kopa-kutsana-bhartsaneṣu* (8-1-8)

27. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

28. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

29. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

30. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

31. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

dataradatamayoḥ samasampraxharaṇayoḥ strīnigade bhāve dve bhavata iti vaktavyam

32. See *Mahābhāṣya* of Patañjali under rule no 8-1-12.

svārthe avadhāryamāṇe anekasmin dve bhavata iti vaktavyam

Bibliography

1. Vāsu - *Aṣṭādhyāyī* (translation in English) rules 3-4-1- to 3-4-45 published by Motilal Banarasidass, Delhi.

2. ---- do -------- do ---- rules 6-1-1 to 6-1-11

3. do do rules 8-1-1 to 8-1-15

4. Kartre - *Aṣṭādhyāyī* (translation in English) of above mentioned rules. Published by *C.A.S.S.* University of Poona.

5. S.D. Joshi - *Vyākaraṇa Mahābhāṣya* (Translation in English) of above rules, published by C.A.S.S. University of Poona.

LEXICAL PERSPECTIVES IN THE GAṆAPĀṬHA

HUKAM CHAND PATYAL

AN ATTEMPT is made in this paper to discuss some of the lexical problems which we face while handling certain words enlisted in the Gaṇapāṭha (GP) enumeration. Some lexical items enumerated in GP. and also in Dhā P. are not available or attested in the extant literature. Hence, it is not always possible to come out with the semantic value of the lexical item under discussion.

1. Incidentally it may be pointed out that the validity of many forms found in GP even when based on critical evaluation of manuscript-tradition, is suspect unless they occur in the extant literature (Vedic or Classical). Birwé (1961) has made a comparative study of GP. material available in fourth and fifth *adhyāyas* of P. with the other GPs belonging to Pāṇinian as well as non-or extra-Pāṇinian system. He has also reconstructed the vocable(s) concerned.

1.1. Some forms occur only as illustrations under the lemme belonging to a *gaṇa*, their actual occurrence may be dubious. We must examine the tradition *in extenso*, at times we must bring in the material from the non- or extra- Pāṇinian schools also for the purpose of our discussion. There might have existed a pre-Pāṇinian GP., even if it is difficult to see through the tradition. The GP. might have been put into proper order by P. and then the *sūtrapāṭha* was written and arranged. We see even differences in the head-words of *gaṇas*, each writer of GP. arranged head-words in accordance with viewpoint of his school. E.g. *ajādi (gaṇa)* becomes *hoḍādi* in Mugdha Bo., *ukthādi* becomes *nyāyādi* in Śāk., *kambojādi* becomes *colādi* in Jaina etc. (for exhaustive list see

Ayacnit 1961: 25ff.). Almost all schools preserved *mutatis mutandis* P.'s data of GP. 'The GP. evidence is at best only secondary and should always be taken with caution' (Agrawal 1953: 29). The *gaṇas* have been considerably tempered with since P.'s time. Sometimes a word is enlisted in more than one *gaṇa*, mainly to derive the secondary forms with different suffixes. At time the text of GP. is not reliable, hence that has given rise to various and spurious readings in the GP. text. The GP. text does not have any meaning (*arthapāṭha*), occasionally it becomes necessary to specify meanings also, when in a particular text, a certain word is intended to conform to the *gaṇa*-rule. In *gaṇas* like *uñchādi, pāraskarādi, pravṛddhādi* etc. meanings are also recorded (see Ayachit 1961: 34).

2.0. Now we shall discuss in brief some actual examples from GP. involving a number of lexical and semantic problems in determining the lemma and then deciding the meaning.

2.1. We shall discuss some cases of inherent textual defects. The word *mukhya* is barytonic vide P.6.1.213 (*yato'nāvaḥ*). The word is enumerated in the *śākhādigaṇa* (226.2 (5.3.102)); Birwé 1961:393, reconstruction 2). *śākhādibhyo yat* will have the form *mukhya* (< *mukha* + *yat*). But the editions of Bhaṭṭoji Dīkṣita's *Siddhā Kau*. read *yaḥ* for *yat*, on which *Bālamanoramā* remarks: *yat iti tv apapāṭhaḥ; taittirīye mukhyo bhavati ity ādau mukhyaśabdasya ādyudāttadarśanāt, u-gav-ādisūtrabhāṣyaviruddhatvāc ca*. But the *Laghuśabdenduśekhara* rightly says that *ya iti tv apapāṭhaḥ*. Had *ya* been the suffix the accent would have been on the final syllable (Katre 1971:X). The word *mukha* is also included in the *digādigaṇa* (116.18 (4.3.54)); see Birwé 1961: 253, reconstruction 17), to which the suffix-*yat* is added. The word *daṇḍa* is enumerated in the *daṇḍādigaṇa* (112.5 (5.1.66), Birwé 1961: 314, reconstruction 1), and to this the suffix-*ya* is added (*daṇḍādibhyo yaḥ*), and thus we get the oxytonic form *daṇḍyāḥ* (see Katre 1971: 265), but *Siddhā Kau.* reads *daṇḍādibhyo yat*, according to this the form should have been barytonic (see P. 6.1.213 for accent). This obviously shows that *Siddhā Kau.* reading is not correct.

2.2. We shall take some such cases wherein the text tradition is-dubious. The word *akaśāpa m.* 'name of a person' is included in the *śubhrādigaṇa* (230.53 (4.1.123, but EDS. 60A erroneously 4.1.23). *akaśāpa* + *ḍhak* (= *eya*) (vide P. 4.1.120 *strībhyo ḍhak*), and one gets the form *ākaśāpeya*. Birwé (1961: 123, reconstruction 36) accepts *akaśāpa*. Majority of the GPs, belonging to Pāṇinian and non-Pāṇinin systems adopt this reading. But in Cāndra, Gan Ra.; GP. of Rāmakṛṣṇa we have v.1. *akaśāya*, secondary form *ākaśāyeya*. There seems to be orthographic confusion between *p* and *y* in manuscripts. In Gan. Ra. (Eggeling's Ed.) we have one more v.1 *akaśāka* which is spurious.

We also notice some cases where we find variability between *v* and *b* forms. The word *ajavasti m.* 'name of a person' (EDS, 744A). The word is included in the *śubhrādigaṇa* (230.14 (4.1.123)). *ajavasti* + *ḍhak* (= *eya*) = *ājavasteyā* 'descendent of Ajavasti' (Katre 1971: 48). The same word is also included in the *gṛśtyāidgaṇa* (77.6) (4.1.136)). *ajavasti* + *ḍhañ* (= *eya*) = *ājavasteya* (barytonic) 'descendent of Ajavasti' (Katre 1971: 47). The word is also read in the *yaskādigaṇa* (184.15 (2.4.63)), you have *luk*, and (pl.) *ājavastayaḥ*. Birwé (1961: 121, reconstruction 12) under the *śubhrādigaṇa* on 4.1.123, and also under the *gṛṣṭyādigaṇa* (p.127, reconstruction 7) on 4.1.136 reconstructs the word as *ajabasti*. Cāndra and Gan Ra. read *ajabasti*, whereas all other GPs read *ajavasti*, still Birwé prefers the reconstruction *ajabasti*. It may be pointed out that EDS. has not recorded the entry *ajabasti*. The same type of variation is found between *bida* and *vida* (see Birwé 1961: 96-7, reconstruction 1, on *bidādigaṇa* 4.1.104). Here also Birwé reconstructs the form *bida*. The secondary form *baida*< *bida* + *añ*. It is true that majority of GPs have the reading *bida*, but *vida* is also attested in Gaṇ Ra., Śāk., jaine. As lexicographers we have to give *bide m.* 'name of a person' as a lemma, whereas we have to record this variant *vida*, cf. *bida* 2.3. This is a well-known fact that some words appear in more than one *gaṇa* mainly because of deriving different secondary forms.

The word *bhalandana m.* 'name of a person' is enumerated in the *arīhaṇādigaṇa* (11.42 (4.2.80)). Thus *bhalanadana vuñ* (=*aka*) < *bhālandanaka* 'pertaining to Bhalanḍana' (see Katre 1971: 398 and 402, Birwé 1961: 176). The same word is read in the *śivādigaṇa* (228.77 (4.1.112)). Thus *bhalandana* + *aṇ* > *bhālandanā* 'descendent of Bhalandana' (Katre 1971: 398, 402; Birwé 1961: 116-7, reconstruction 56). The word is attested in all GPs, except Cāndra where the reading is *kalandana*. The same word is also read in the *yaskādigaṇa* (184.32 (2.4.63)), you have *luk*, eg. 'name of a person', *bhalandanāḥ* (pl.) 'his progeny or descendent'.

2.4. Now we shall discuss some such cases wherein we find discrepancy between P.'s accent rules and the actual form (s) attested in the extant Vedic literature. The compound expression *kaviśasta adj.* 'praised by wise men' is enumerated in the *pravṛddhādigaṇa* (153.7 (6.2.147)). We have *kavisastā* (oxytonic) attested in *Tai Br.* 3.5.3.1; 3.6.7.2; which is the right type of accent for a *tatpuruṣa* compound, but we find accent shift, see. e.g. *kavīsasta* (*Śat Br.* 1.4.2.8; *Śat Br.* (K.) 2.4.1.4; cf. Ayachit 1961: 54; Katre 1971: 134 however, does not notice the case of accent shift).

The word *anukūla* is enumerated in the *brāhmaṇādigaṇa* (167.93 (5.1.124); Gaṇ Ra. 7.402 (425)). According to P. 6.2.189 *anor apradhānakanīyasī* the form should be *anukūlā* (oxytonic), but the form which is actually attested is paroxytonic *anukūla* adj. 'following the bank or slope or declivity, according to the current' (AVŚ, 5.14.13, see EDS. 2650A). *anukūla* + *ṣyañ* (*ya*) = *ānukūlya*.

2.5. Many *gaṇas* contain one or more *antargaṇas* (sub-*gaṇas*) which have a specific purpose besides the general *gaṇa* functions (for *antargaṇas*, see the list given in Ayachit 1961: 28 ff.). E.g. *bidādi* (64.1 (4.1.104)) has *haritādi* (164 (259). 30 (4.1.100)) as sub-*gaṇa*, *gargādi* (71.1 (4.1.105)) has *lohitādi* (71 (202). 25 (4.1.18)) and *kaṇvādi* (71 (38). 60 (4.2.111)) as sub-*gaṇas*. The word *harita* is read in the *haritādigaṇa* (P.4.1.100) which is a sub-*gaṇa* of the *bidādi* (164 (259). 30 (4.1.104)). Thus with the suffix *añ* we get the form *harita* + *añ* = *hārita* (P. 4.1.104)

and *hārita* + *phak* (= *ayana*) = *hāritāyanā* (P. 4.1.100) 'the great grandson of Hārita'.

2.6. Some forms occur by way of illustrations under a particular lemma belonging to a *gaṇa*, but the derived form need not be taken as an independent lemma. The form *śākhya*<*śākhā* + *yat* (226.1 (5.3.103)). *śākhya* = *śākheva* 'like a branch' (Katre 1971: xi). This secondary form need not find place as an independent lemma.

3.0. Résumé

From the foregoing discussion we are led to the following considerations *argumenti causa*:

1. The GP. lexical items have to be accepted first of all with utmost amount of caution and care.

2. Some of the words enumerated in GP. are not found in the extant literature.

3. Some of the spurious readings have appeared due to orthographic reasons or due to defect in manuscript-traditions. We need not accept all such erroneous or spurious readings.

4. There are many cases wherein we find accent shift in the attested forms as against P.'s accent rules

Reference

Agrawal, V.S. 1953. *India as known to Pāṇini*, Lucknow: University of Lucknow.

Ayachit, S.M. 1961, 'Gaṇapāṭha : A Critical Study', *Indian Linguistics* 22.1.63.

Birwé, Robert. 1961. *Der Gaṇapāṭha zu den Adhyāyas* IV und V der Grammatik Pāṇinis. Wiesbaden: Otto Harrassowitz.

EDS. = Encyclopaedic Dictionary of Sanskrit on Historical Principles. Pune: Deccan College.

Katre, S.M. 1971. Dictionary of Pāṇini: Gaṇapāṭha. Pune: Deccan College.

INDECLINABLES— A SEMANTIC SURVEY

K. VIJAYAN

AVYAYA MEANS that which is not liable to change- नास्ति व्यय: यस्य[1]. In grammar it connotes a number of words which do not change their forms to express relationship with other words when used in a sentence. Thus they have the same form in all the genders and cases- तत्परे विभक्ति: न तिष्ठति। अतएव लिङ्गत्रयाविकृतम्।[2] *Gopathabrāhmana* couches this peculiar feature of *avyaya* in a beautiful manner:

सदृशं त्रिषु लिङ्गेषु
सर्वासु च विभक्तिषु।
वचनेषु च सर्वेषु
यन्न व्येति तदव्ययम् ॥[3]

Here सदृश means एकप्रकारता which is the sameness of form. Patañjali explains the word clubbing together its etymology and grammatical significance:

न व्येति इति अव्ययम् । क्व पुनर्न व्येति? स्त्रीपुन्नपुंसकानि, सत्त्वगुणा:, एकत्वद्वित्वबहुत्वानि च। एतानर्थान् केचिद् वियन्ति, केचिन्न वियन्ति, तदव्ययम् ।[4]

Bhoja defines *avyaya* as अलिङ्गसङ्ख्या-शक्तीनि without touching the etymological sense of the term. *Ṛkprātiśākhya* while dealing with the fourfold conventional division of *avyaya* as follows:

---

1. शब्दकौस्तुभ
2. Ibid
3. 1.1.26
4. *Mahābhāṣya*, I 1.38

क्रियावाचिनमाख्यात-मुपसर्गो विशेषकृत्। सत्त्वाभिधायकं नाम निपाताः पदपूरणाः ॥ [5]

It is stated here that *avyayas* have as significant role to perform when they are associated with verbs and which is more so when designated as *upasargas*. *Avyayas* that come under the caption of *nipātas* have the function of filling up gaps for metrical purpose. Apart from these two types of *upasargas* and *nipātas*, a lot of these are found elsewhere. Some of them can stand independently in their use such as विना, ऋते, etc., while the others are dependent on other words. A verse from *Rāmāyaṇacampū* of Bhoja can be cited as an instance of various types of *Avyayas* incidentally together:

उच्चैर्गतिर्जगति सिद्ध्यति धर्मतश्चेत्
तस्य प्रमा च वचनैः कृतकेतरश्चेत्।
तेषां प्रकाशनदशा च महीसुरैश्चेत्
तानन्तरेण निपतेत् क्व नु यत्प्रणामः॥

Here उच्चैः is an adverb used as an adjective. तस् is a suffix that forms an adverb. चेत् is a conditional conjunction. च is a copulative conjunction. अन्तरेण is an example of the instrumental case-form used as an adverb. क्व is another adverb. नु is a conjunction that goes into combinations like क्वनुखलु, etc. प्र is a prefix to a substantive. तस् and प्र are never used independently.

As per the aphorisms of Pāṇini and the *Bhāṣya* of Patañjali thereon, *avyayas* can be divided into five heads:

(1) स्वरादीनि

(2) निपाताः

(3) असर्वविभक्ति तद्धितान्तानि

(4) कृदव्ययानि and

(5) अव्ययीभावसमासान्तानि

Avyayas and their meaning

The classification of *avyayas* is effected according to their form but their semantic aspect is seldom lost sight of. *Ṛkprātiśākhya*

5. 12—24

in its treatment of *avyayas* enumerates उपसर्गs to be twenty, and says that they convey sense:

तन्नाम येनाभिदधाति सत्त्व
तदाख्यातं येन भावं स धातुः।
उपसर्गा विंशातिरर्थवाचकाः
सहेतराभ्यामितरे निपाताः॥

The change in the sense of the verb to which *upasargas* are added has given forth the formulation of the theory that they do not have their own import, and they only modify the meaning of the root to which they are attached. Subsequently there emerged a division among grammatical speculators, some holding the view that they are द्योतक's and others affirming that they are वाचक's. Scholars belonging to the former group advance their theory as:

उपसर्गेण धात्वर्थो बलादन्यत्र नीयते।
प्रहाराहारनीहार-संहारपरिहारवत्॥

The word वाद when prefixed with प्र.वि. सम्, अनु and अप brings in impressive change in meaning. Since the difference of scholars in this respect is just a matter of appreciation, both the views will remain current at all times. However, a word that is broken or not, should convey some sense in keeping with the practice in general in languages. In the examples referred to i.e; हार and वाद it is quite reasonable to assume that the variation in sense is subject to the additional element of *upasarga* involved rather than assigning all the changed meaning to the verb concerned. *Upasargas* and for that matter the *avyayas* as a whole might have been originally independent words, and were reduced into the present size owing to various causes. What harm is there if the original sense is taken to be associated with the existing element of the word. The observation of Bhāguri can be adduced in support of this view. According to him by the elision of the letter अ, वगाहः and वकोटः are formed, अपि loses its अ and पिनद्धं and पिकः are obtained. सब्रह्म and सततं are got by the dropping of the *anusvāra* of prefix सम्.

Svarādi

Svarādi as the term suggests is a group of *avyayas* beginning with स्वर as is ordained by the *sūtra*, स्वरादिनिपातमव्ययम्. It is further fixed to be one coming under आकृतिगण as corroborated in *śabdakaustubha*. There again the *avyayas* are ofter arranged in small sub-groups according to their endings keeping in view of further grammatical action. As for example, the five r-endings viz.,स्वर्, अन्तर्, प्रातर्, पुनर् and सनुतर् are subject to उत्व ordained by हशि च owing to the force of the indicatory 'u' in रु. On occasions it is the meaning that governs grouping as in सना, सनत्, सनात्—all the three expressive of नित्यत्व. The sub-grouping of वषट्, श्रौषट् and वौषट् is again done considering their semantic unity of expressing the sense of देवहविर्दान. मृषा and मिथ्या in the sense of वितथा, मिथो and मिथस् in the sense of रहस्, अनिशं नित्यं, सदा, अजस्रं and सन्ततं in the sense of सातत्य; चिराय, चिररात्राय, चिरस्य, चिरं, चिरेण and चिरात् in the sense of कालविप्रकर्ष—all these are also grouped on the ground of identity of meaning among themselves.

Nipātas

Nipātas are so called since they are studied as such in their respective shades of meaning without looking into their formal aspect: उच्चावचेषु अर्थेषु निपतन्ति। Yāska elaborates: अपि उपमार्थे। अपि कर्मोपसङ्ग्रहे। अपि पदपूरणः.[5] *Laghuśabdenduśekhara* says: नियमेन पातयन्ति स्वार्थमन्यस्मिन् इति निपाताः। Bharata, in his *Nāṭyaśāstra* incidentally gives something like a definition of निपातs:

प्रातिपदिकार्थयोगात्
धातुच्छन्दो निरुक्तयुक्त्या च।
यस्मान्निपतन्ति पदे
तस्पात्प्रोक्ता निपातास्तु ॥[6]

Ṛkprātiśākhyā maintains the sense of निपातs in the light of its etymology and examines their use in अमिताक्षर (Veda) and मिताक्षर (Classical Sanskrit).

---

5. *Nirukta*, I.4

6. V - 10

निपातs are fourfold: चादयः, उपसर्गाः, गतयः and कर्मप्रवचनीयाः चादयs are enumerated under the *sūtra*, चादयोऽसत्त्वे along with their definition which means that they do not denote द्रव्य. According to Patañjali निपातs are उपसर्ग प्रतिरूपकs like अव, वि etc.—

अवदत्तं विदत्तं च प्रदत्तं चादिकर्मणि।
सुदत्तमनुदत्तं च निदत्तमिति चोच्यते॥

Bhartṛhari calls them as परतन्त्रs:

समुच्चिताभिधानेऽपि विशिष्टार्थाभिधायिनाम् ।
गुणैः पदानां सम्बन्धः परतन्त्रास्तु चादयः॥

The idea of the *kārikā* is thus explained:

यथा पदान्तर साहचर्यं विना घटः इति प्रयुक्तेऽपि कम्बुग्रीवादि-मत्पदार्थ बोधो भवति, तद्वत् 'च' इति केवलस्य चकारस्य प्रयोगे न कोऽप्यर्थः स्फुरति, किन्तु यत्किञ्चित्पद समभिव्या-हारेणैव; अतश्चादयः परतन्त्राः।

(1) Certain *avyayas*

Let whatever be the process, *nipātas* have their own denotation. They indicate numerous different shades of meaning by themselves or in combination.

प्र is used in forty-one meanings indicated by the word such as:

आदिकर्मणि	—प्रक्रमते
उपरमे	—प्रपितामहः
दिग्योगे	—प्राची
ऐश्वर्ये	—प्रभुर्देशस्य
जन्मनि	—हिमवतो गङ्गा प्रभवति
नर्मणि	—प्रहसति, etc.

अव has nearly four dozens of different shades of meaning as बोध in अवगति, रोध in अवग्रह, धैर्य in अवष्टप्य, भूषण in अवतंस In अबला, अ is an अव्यय and the word means अल्पबला. अञ्जसा has two meanings, जत्त्व and शीघ्र, नाना denotes अनेक as in नानाविधं समाजं and विना meaning negation as in विना नारीं निष्फला लोकयात्रा, उषा, the indeclinable word connotes प्रातःकाल as उषातनो वायुः अव has forty-seven shades of meaning. इतीव has just the meaning of इति.

(2) Upasargas

उपसर्गs are particles prefixed to verbs, and they are twenty in number, प्र, पर etc. Bhoja enumerates them and states व, पि and स are also to be included in the list, enhancing the number of उपसर्गs further.

In his commentary on *Nirukta*, Durgācārya explains उपसर्ग as आख्यातमुपगृह्य अर्थविशेषमिमे तस्यैव सृजन्तीति उपसर्गाः। स्कन्दस्वामी defines उपसर्ग in a different way-उपेत्य नामाख्यातयोः अर्थस्य विशेषं सृजन्ति इति उपसर्गाः

उपसर्गs are divided into four:

धात्वर्थं बाधते कश्चित् कश्चित्तमनुवर्तते।
तमेव विशिनष्टयन्योऽनर्थकोऽन्यः प्रयुज्यते॥

(3) Asarvavibhakti pratyayāntas

All the suffixes discussed under the *sūtra*, तद्धितश्चासर्वविभक्ति in the *bhāṣya* are meant for forming *avyayas*. They designate meanings like अल्प, little or small (अल्पार्थात् शस् कारकादन्यतरस्याम्)e.g. बहु ददाति इति बहुशः, अल्पं ददाति इति अल्पशः

(4) Kṛdavyayāni

These include *kṛt* suffixes ending in म and एच् such as स्मारंस्मारम् etc.

Avyayībhāva samāsāntas

This covers all the forms ordained by the *sūtras*, अव्ययीभावः to अन्यपदार्थे च संज्ञायाम्।

Conclusion

Indeclinables form an important part of the language that is predominantly inflected. They help in lessening the stiffness of the language to a considerable extent. *Avyayas* are to be viewed as potent means of enriching diction. They have multiple meanings capable of being used with necessary precision in a suitable context. It is the use of conjunctions, particles, interjections, etc. that make the language of the writer more idiomatic and sense

more crisp. The system of grammar initiated by Pāṇini explains the indeclinables according to their form and the formative technology employed therein. Stress is given to the semantic aspect throughout, as is evidenced by the sub-grouping of *avyayas* with *gaṇas*.

SEMANTIC PROBLEMS IN VEDIC GRAMMAR

M. Sivakumara Swamy

The importance of the grammatical tradition of Pāṇini should be duly recognised in respect of understanding the Vedic forms and Vedic accent. The method of Pāṇini in this respect is to give rules about Vedic forms only in those cases where they differ from classical Sanskrit forms. It is therefore expected that a student of Veda should have the knowledge of the technical details of classical Sanskrit grammar to have access to the peculiarities of Vedic forms. In a nutshell a *kārikā* quoted by Bhaṭṭoji Dīkṣita under the *sūtra vyatyayo bahulam* (*Aṣṭ*. III 1.85; *Si. Kau*. 3433) notes the various peculiarities of Vedic language with reference to the classical Sanskrit language:

Suptiṅupagrahaliṅganarāṇam kālahalac svarakarṭryaṅāmca
Vyatyayamicchati śāstrakṛdeṣāṃ so'pi ca sidhyati bāhulakena;

In the Vedic language we come accross many peculiarities with regard to the application of (1) case-affixes, (2) conjugational suffixes, (3) *parasmaipadi* and *ātmanepadi* affixes, (4) rules of gender, (5) persons, (6) tense, (7) rules of accent, (8) rules of interchange of consonants, (9) rules of interchange of vowels, and (10) rules relating to *kṛt* and *taddhita* affixes included in the *pratyāhāra yaṅ* (*Aṣṭ*, III. 1.22 to III. 1.86).

Semantic considerations may not apply when such changes of case-affixes as *śi* for *jas* and *śas* optionally according to *śeśchnāndasi bahulam* (*Aṣṭ*. VI. 1.70) with reference to *jaśśasoḥ śiḥ* (*Aṣṭ*. VII. 1.20) or *ais* for *bhis* optionally according to *bahulaṃ chandasi* (*Aṣṭ*. VII. 1.10) under *ato bhisa ais* (*Aṣṭ*. VII. 1.9), take place. But when one case-affix is applied in the place another case-affix or when one *lakāra* is used in the place of another *lakāra*

or when *vacanas* and *puruṣas* are freely changed, semantic problems are bound to arise in view of the classical rules. Pāṇini notes these instances with a view to cautioning the Vedic students about them and making them understand the vedic language better. For instance, the following instances among nominal forms pose problems:

(1) *dhuri dakṣiṇāyāḥ*

(2) *mitra vayaṁ ca sūrayaḥ*

(3) *ṛjavaḥ santu panthāḥ*

(4) *parame vyoman*

(5) *nābhā pṛthivyāḥ*

The first one has *dākṣiṇāyāḥ* in genitive instead of *dakṣināyām* in locative. The second sentence has *mitra* in the nominative singular instead of *mitrā* (*mitrāṇi*) in the nominative plural. Similarly in the third instance *panthāḥ* is in the nominative singular instead of being in the nominative plural as *panthānaḥ*. The fourth instance is a case of *sup-luk* (i.e. *luk* of the locative suffix) in *vyoman*. The fifth instance is of *ḍā*-substitution for the locative suffix; hence what is expected there is *nābhau pṛthivyāḥ*. Pāṇini reveals these peculiarities with such *sūtras* as *supāṃ su-luk-purvasavarṇā ccheyāḍāḍyāyājālaḥ*, etc. In the light of these revelations of Vedic peculiarities in declension, it is possible to understand the Vedic language better. The interchange of persons can be seen here, *tamu stuṣaindraṃ taṃ gṛṇīṣe*—here *stuṣe* and *gṛṇīṣey* are in second person instead of being in first person.

Vedic peculiarities in respect of using *lakāras* are firstly the use of some *lakāras* for all *lakāras* optionally and secondly the use of one *lakāra* which is not found in classical Sanskrit. The first point refers the use of three *lakāras*, Viz., *lūṅ, laṅ* and *liṭ* for all *lakāras* optionally. This is noted by Pāṇini in his *sūtra—chandasi luṅlaṅliṭaḥ* (*Aṣṭ*, III. 4.6). For instance, in *devo devebhir ā gamat*, Aorist (*luṅ*) is used for imperative (*loṭ*); in *idaṃ tebhyokaraṃ namaḥ*, imperfect (*laṅ*) is used for imperative (*loṭ*); in *agnim adya hotāram avṛṇīta*, imperfect (*laṅ*) is used for present (*laṭ*); and in *adyamamāra*, perfect (*liṭ*) is used for present (*laṭ*). The *lakāra*

which is peculiar to Veda only is *leṭ*. Pāṇini explains it by the *sūtras*— *liṅarthe leṭ, upasaṃvādāśaṅkayośca* (*Aṣṭ*. III. 4.7-8). Expressing a will, it has imperative (*loṭ*) sense, e.g. *bhuvāni, vocāvahai, ucchāt, aśnavat*. Used with an interrogative, it expresses will with a doubt, e.g. *kavinnvasya tṛpṇavah* (*kuvit nu asya tṛpṇavaḥ*). It also means reciprocal agreement or apprehension, e.g., *ahameva paśūnām īśai, nejjihmāyanto narakam patāma*.

Transposition of Preposition and Verb

In classical Sanskrit the prepositions (*upasarga* or *gati*) are prefixes. But in Veda, it is not exclusively the case. They may be before the verbal root or after it. *te prāgdhātoḥ* (*Aṣṭ*. I. 4.80), *ċhandasi pare'pi* (*Aṣṭ*. I. 4.81). In classical Sanskrit they were not separated from the verb. But in Veda they are separated from the verb. Further there may be intervention of other words between the preposition and the verb. *vyavahitāśca* (*Aṣṭ*. I. 4.82). For example, in *carathābhi dhṛṣṇu, abhi* comes after *caratha*; in *namobharanta emasi* (*ā imasi*), *ā* comes before *imasi*; in *ā te pitarmarutāṃ sumnameti*, between *ā* and *eti* there is the intervention of words *te pitarmarūtāṃ summan*. Whatever might be the position of the preposition, it gets related with the verb and gives its own meaning or modifies the meaning of the verb. In view of this freedom in the positioning of the prepositions, it can be assumed that the preposition has its meaning independent of the verb and modifies the meaning of the verb through its meaning. Yāska discusses this problem. *na nirbaddhāḥ upasargā ārthānnirāhuriti śākaṭāyanaḥ*. This is one opinion. The other opinion is that *upasargas* can convey their meanings independently of the verbs.

Semantic considerations in kṛdanta and taddhitānta forms

If we take into account the semantic considerations in the *kṛdanta* and *taddhitānta* forms in Veda, it is possible to assume that there was greater degree of freedom in the formation of those forms in particular senses. For instance, in Veda, the *kṛt* suffix *in*

(*i*) could be added to verbs other than those covered in the classical *sūtras* of *Aṣṭ*. III. 2.25 and 26. It could be applied to *van* - to honour, *san* - to worship, *raks* - to protect and *math* - to agitate, as noted by Pāṇini saying *chandasi vanasanarakṣimathām*. (*Aṣṭ*. III. 2.27). Thus we have the forms such as—*brahmavanim kṣatravanim* in the sense of *brahma*, *kṣatraṃ vanati iti*, i.e. *kartari* sense; *goṣaṇim* (*gāṃ sanati iti*); *pathikarakṣayaḥ* (pl. of *pathirakṣi* in the sense of *panthānaṃ rakṣati iti*); *havirmathinām* (Gen.pl. of *havirmathi* in the sense of *havir mathnāti iti*). Again according to *chandasi saḥ*, (*Aṣṭ*. III. 2.63), there is the notice of more cases of *ṇvi* (*kṛtpratyaya*) application beyond what is stated in the classical rule *bhajo ṇviḥ* (*Aṣṭ*. III. 2.62). Thus we have the forms like *pṛtanāṣāṭ* (nom. sing. of *pṛtanāsāḥ* in the sense of *pṛtanāme sahate iti*). *vahaśca* (*Aṣṭ*. III. 2.64) accounts for such forms as *dityavāṭ* etc.

Vedic infinitives are the other cases in point. The sense of the infinitive can be given by a variety of forms ending by such *pratyayas* as *tumun, se, sen, asen, kse, kasen, adhyai, adhyain, kadhyain, śodhyai, śadhyain, tavai, taveṅ, taven,* etc, (*Aṣṭ*. III. 4.9)

In Veda *ktvā* also, besides *tyap* is added after an *avyayībhāva* other than the one preceded by *nañ*. For instance there is *paridhāpayītvā* in Veda, where *lyap* was expected and there is also a form like *arcya* where *ktvā* was expected.

Accounting for the Vedic *taddhitānta* forms with certain accent in the sense of *tatra sādhu*, Pāṇini refers to the *pratyayas* with certain *it*. For instance, when the classical rule says *vārṣabhyah ṭhak* (*Aṣṭ* IV. 3.18), the Vedic rule says- *chandasi ṭhañ* (*Aṣṭ*, IV. 3.19), thus accounting for *vārṣika* with *ādyudātta* (*ñnityādirnityaṁ*). This affix (*ṭhañ*) is applied to *vasanta* and *hemanta* in senses other than *tatra sādhu*, thereby barring *aṇ* enjoined by *sandhivelādyṛtunakṣatrebhyo'ṇ* (*Aṣṭ*. IV. 3.16). For example. (1) *madhuśca māhavaśca vāsantikāvṛtū* (2) *madhaśca sahasyaśca haimantickāvṛtū*. (Vide *vasantācca hemantācca*— *Aṣṭ*. IV. 3.19-20).

Kāraka Peculiarities

Some semantic problems arise in Veda due to *kāraka* peculiarities. For instance the object of *juhoti* may be in the accusative or instrumental : *yavāgvā agnihotraṃ juhoti*; here *agnihotra* which means *havis* is in the accusative, while its adjective *yavāk* is in the instrumental. This is noticed by Pāṇini in the *sūtra— tṛtīyā hośchandasi* (*Aṣṭ*. II. 3.3). Sometimes the genitive occurs in the sense of the dative and vice versa, e.g, (1) *puruṣamṛgaścandramasaḥ*; here *candramasaḥ* in genitive is for *candramase* (Dative); (2) *yā kharveṇa pibati tasyai kharvaḥ*; here *tasyai* (Dative) is for *tasyāḥ* (Genitive). These peculiarities are noticed by Pāṇini and Kātyāyana in *caturthyarthe bahulaṃ chandasi* (*Aṣṭ*. II. 3.62) and *ṣaṣṭhyarthe caturthīti vācyam*' (*vārttika*). The genitive case-ending is optionally given to the instrument of *yaj*, e.g., *ghṛtasya, ghṛtena vā yajati*. This is noticed by Pāṇini in the *sūtra—yajeśca karaṇe* (*Aṣṭ*. II. 3.63). Thus Pāṇini has brought out such *kāraka* peculiarities to get over the semantic problems due to irregularity of *kāraka*-relations.

It may be concluded that these instances of what are called Vedic peculiarities in view of the rules of classical Sanskrit show how the Vedic language had greater variety of forms than what we find in the corresponding classical Sanskrit forms. Greater freedom is noticed in the use of forms. In view of rules of classical Sanskrit language, some semantic problems arise. But by noticing those peculiarities in Veda, the grammarians of the Pāṇinian tradition have given ample guidance for the students of Veda to get over those problems and understand Vedic language better. The process of purification and standardisation of language in course of time has resulted in the loss of great number of forms and lack of freedom in using the language. This has been the case with classical Sanskrit. Compared to classical Sanskrit, Vedic Sanskrit looks like a natural language.

INFLUENCE OF PĀṆINIAN SANSKRIT ON MODERN ORIYA SEMANTICS

Kshirod Chandra Dash

Most of the modern Indian languages owe their origin to Sanskrit. In the opinion of some scholars, Sanskrit originated Pāli and Pāli gave birth to various Prakrit languages.[1] Māgadhi Prakriti is considered the source of Bihāri (Hindi), Bengali and Oriya languages. With some modification of the Pāṇinin alphabets in Hindi, Bengali and Oriya the arrangement of vowels and consonants and their etymology are but the same in all these three languages. Vowels are pronounced without the help of other alphabets (*svayameva rājate*) whereas consonants take the help of vowels (*vyajyante svareiriti vyañjanāni*).This principle is accepted by all the above three languages. In Oriya grammar most of the euphonic changes are administered according to the Pāṇinian rules of *Aṣṭādhyāyī*. The *sandhi* rules are compulsory in compounds and in the combination of *upasargas* with the roots.[2] The new way of phonetic change due to the quick pronunciation of co-existing letters with the absence of even less than *ardhamātrā* effects euphonic changes. *Saṃhitā* or euphonic change is a natural statey of a word in a sentence and hence, *bho* + *ati* always takes the form- *bhavati*. Since all the above rules have their sway over modern Oriya language, the effect of Pāṇinian Sanskrit on modern Oriya semantics deserves due attention and analysis.

Oriya semantics as a science of language has received little attention. At times it is not possible to say what meaning a particular word like *abhāsuachi* or *anyāse* carried in the *Rudrasudhānidhi*[3] or a word in the *mādalapāñji* in historic and pre-historic times. Establishing connections between the old

meaning and the new meaning of the words becomes very difficult. There is a lot of confusion among the scholars to determine the meaning of some Vedic words like *vayuna*, *jarbhari*, *turphari*, *lodha* and *nada*.[4] In this context three intellectual laws of the language propagated by the French linguist Breal deserve attention in speculating modern Oriya semantics.[5]

The first *laws of specialisation* speaks of the examples of comparative and superlative degree. In the old languages, the comparative could be marked by the suffixes *ro*, Skt., *uparaḥ*, Lat. *superus*, O. *upara*; Skt. *adharaḥ*, Lat. *inferus*; *tero* Skt. *antaraḥ* Lat. *interus*, O. *antara*; Skt. *adhamaḥ*, *upama*, Lat. *infimus*, O. *adhama*, *upama*; *temo*, Skt. *antimaḥ*, Lat. *intimus*, O. *antima* etc.[6] Gradually the influence of Pāṇini made this form of language easier by the comparative signs of *tarap* and *tamap* or *iyas* and *iṣṭha*.[7] So the changed forms in both Sanskrit and Oriya become- *bṛhat-bṛhattara and bṛhattamaḥ; guru, gurutaraḥ, gurutamaḥ; bara, bariyāna, bariṣṭha* etc.

Like French, German and Marathi while keeping the comparatives in the old manner Oriya adopted the law of specialisation, and a single word assumed the function of all the comparatives and superlatives. In French it is plus, in English more, German *mehr*, Marathi *adhik*[8] and in Oriya *besi*, *apekṣā*, *ati*, and *atyanta* governed the same principle at the appropriate places.[9] The substitution of preposition for the traditional declension is the other example, e.g. *mo apekṣā* (O), (*majapekṣā* - M) used for Sanskrit *mat* or *mattaḥ* and *mo pāin* (O) for Sanskrit *mahyam*.

In any language *law of differentiation* is defined as the international ordered process by which words apparently synonymous have nevertheless taken different meanings and can no longer be used indiscriminately. In Oriya *mātā*, *mā* and *bou* mean originally the mother. When *bou/mā* is the affectionate name for mother, *mātā* (Skt. *mātṛ*, A.8.3.58) is meant to give expression to awe and reverence. The word *kāma* is the legitimate Prakrit-Oriya-descendant of Sanskrit *karman* (Office occupation, special duty, 4.4.63). Now *kāma* is no longer a synonym of *karman*. When

karman means ceremonial work the word *kāma* means legal work only. The same process is observable in French *chose* - a thing and *cause*, legal affair.[10]

In the same manner the Oriya words like *mana* (mind), *manana* (constant thought or deep concentration), *mati* (thought) belong to the same root √ *man* (to think) and are having substantially different meanings of their own. Sanskrit *hṛdayam* (original sense heart) when comes to *tatsama - hṛda* and *tadbhaba-hiyā/chhāti* means 'courage'. The words like *avagāhana* and *snāna* meaning ceremonial and sacrificial bath, change to ordinary bath when brought to their *tadbhava* form like *gādhuā*. Sanskrit *kartarī* (scissors) in its changed *tadbhava* form becomes *kaṭuri* (O), *kaṭuri* (O) in Oriya and changed its meaning to an instrument for cutting trees and animals in its second form (*kaṭuri*). In like manner, the root √ *pat* (7.4.19) + (*ṇ*) *i* (*c*) > *pāti* > *pātibā* (O), *pateibā* (O), *pakeibā* (O), *pāḍibā* forms used in the sentences like- *jāla pātibā, hāta pateibā, tekā pakeibā, khoṣā pāḍibā,* mean differently in each and every usage.[11] At times the original Sanskrit words in their *tadbhava* forms retain their meaning i.e. *phulla*, *phula* and at times abandon their original meaning for new ones i.e. *netram* (eye,.3.2.182) > *neta* (garment) in Oriya. This process of change of meaning takes place in three different ways i.e. *artha-parivartanam* or change of meanings (ii) *artha-vistāraḥ* or expansion of meaning and (iii) *arthasaṃkocaḥ* or contraction of meaning.

1. Artha parivartanam : (change of meaning)

asuraḥ = devaḥ (in Vedic) > *devāri* (O. and Skt.)

upekṣā = samīpadarśanam > parityāgaḥ (O and Skt.),

anugrahaḥ (from *grahaḥ*, 3.1.143) which meant *bharavahinaḥ sāhāīyārtham kenacit,* later on meant *bhārasyaṅsikabhavena dhāraṇam > dayā* (O. and Skt.),

praviṇah = nitarām snātaḥ > saphala tārparyajñaḥ (O. and Skt.) [12]

paṭala - samūha > meant 'thached house' in the old Oriya of *Mādalāpāñji* [13]

vāṭi (8.4.17) = *vātikā* > *vāḍi* (O) meant a stick only; √ *tul* (3.1.25) to draw out and extract > *tolibā*, *tekibā* which meant to lift (O) [14], *duhitṛ* (*duh* + *tṛc*, 1.268) meaning the milker of the cow in ancient days means daughter in both Sanskrit and Oriya now.

2. *Artha- vistāraḥ or Expansion of meaning:*

payodharaḥ = *dugdhadharaḥ stanaḥ* > *stana* (O),

patram = leaf of a tree (5.4.142) > *kāgadam* (Skt.) > *kāgaja* (O), now with further extension it means 'letter'.

3. Artha-Samkocaḥ or Contraction of meaning:

The third intellectual law of the language is the law of irraddition which reflects the pejoritive tendency of the language or the contraction of meaning. The word *śaucam* which meant only purity or cleanliness now means everyday bodily necessity in Oriya. The word *paṅkajam* or born of mud, now means *padma* (O), *mṛgah* that meant *paśuḥ* in general now means *hariṇa* (O), a category of animal; *gou* which meant *gamanaśīla* now means *goru*, a category of animal.

The change of meaning of the words both in expansion and contraction can also be presented. The word *pānam* (drink) > *pāna* (O) which means 'drink' in general, meant a particular kind of drink, taking of alcohol and also betel in the modern usage.[15] Association both by similarity and contact is also responsible for change and shifting in meaning. In the Oriya sentence like- *ethāre kaṇa hāṭa basichi*? (Is this a market place?) suggests noise and confusion due to its association with *hāta* or market place. Metaphorical use of the language also effects changes in the meaning of the words. In the sentence like, *asmin karmaṇi tasya hastah asti/e kāmare tāhāta achi* (O)- *hasta* or *hāta* here metaphorically suggests the interference of a person in his work. In the usages like *asau jīvan-saṃdhyāyam avatīrṇaḥ/ se jīvana-saṃdhyāre pāda dele* (O), the word *saṁdhyā* metaphorically used, suggests here old age. Thus the treatment of the linguistic

principles that govern the language here testifies to the exhaustive influence of Pāṇinian Sanskrit of the semantic changes of the modern Oriya language both in degree and kind.

Footnotes and references

1. Pt. Chintamani Mishra, *Pāṇini*, 1st Edn. (Bhubaneswar) The Orissa State Bureau of Text Book Preparation and Production, 1984, p.108.

2. *Aṣṭādhyāyī*, 1.4.109.

'Saṃhiteikapade nityā

Nityā dhatūpasargayoḥ,

Nityā samāse, vākye tu

Sā vivakṣāmapekṣate' l

3. Nārāyaṇānanda Abadhūtasvāmī, *Rudrasudhanidhi*, ed. Dr. K.K. Kar, Third Edn. (Bhubaneshwar, Orissa Sahitya Akademi, 1986), pp. 9-10.

4. Ṛg. V.48.2; Ṛg. x.106.6; Ṛg. x. 106.6; Ṛg. III.53.23; Ṛg. 1.32.8.

5. Dr. P.D. Gune, *An Introduction to Comparative Philology*. (Poona : Oriental Book House, 1970), p.76

6. Ibid

7. *Aṣṭādhyāyī*, 5.3.55

(*atisāyane taraviṣṭhanau*);

taraptamapau ghaḥ, 1.1.22;

dvivacana vibhajyapade tarabiyasunau, 5.3.57

(*Pāṇiniya Aṣṭādhyāyī-sūtrapāṭha*, Ed. Brahamdatta Jijñāsu, Ramlal Kapur Trust, Haryana, 1985)

8. Dr. P.D. Gune, Op. cit., p.77

9. Dhaneswar Mahapatra, *Adhunika Oḍiā Vyākaraṇa*, (Cuttack Kitab Mahal, 1998), pp. 27-28,

Cf. Pt. Narayan Mahaparta, *Sarbasāra-vyākaraṇa*, (Cuttack : New Students' Store, 1998), p. 26.

10. Dr. P.D. Gune, Op. cit., p.78

11. Dr. Ladukeswar Satapathy, *Varṇaparivartana-rahasya nirūpaṇam* (Puri : Sri Narayan Press, 1992), p.157.

12. Ibid, p.163.

13. *Mādalāpāñji*, ed. A.B. Mohanty (Bhubaneswar, Utkal University, 1948), p. 30.

jujātriājā jeun paṭalai paramesvaraṅku vijekarai achanti

14. *Gaganamārgaku toliachi vajramuṣṭi* - Rādhānānth Ray, *Veṇīsaṃhāra.*

15. Dr. Ladukeswar Satapathy, Op. cit., p.164.





The Present collection will serve as a useful guide book initiating the aspiring reader into realms of Pāṇini Semantics.

C. Rajendran (b. 1952), the editor of the present collection is currently Professor of Sanskrit at the University of Calicut. His main works are *The Traditional Sanskrit Theatre of Kerala*, *A Study of Mahimabhatta's Vyaktiviveka*, *A Transcultural approach to Sanskrit Poetics* and monograph of *Mahimabhatta* and *Abhinavadarpana*, apart from more than 150 research papers published in India and abroad. He received Kerala Sahitya Akademi Award for Literary Criticism for his work *Pathavum Porulum* and the G. N. Pillai Endowment award for his treatise *Saundarya-sastram*.